Transport and suburban development in Battersea, Wandsworth, & Putney - 1830 to 1914

Thesis

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Transport & Suburban Development in Battersea, Wandsworth, & Putney - 1830 to 1914.

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Abstract

Between 1830 and 1914 London grew dramatically both in population and extent; in the same period a system of public transport was established that brought speedy travel within the reach of the majority of the population. In this period the parishes of Battersea, Wandsworth and Putney, which lie south-west from Westminster on the south bank of the Thames, became an integral part of the metropolis, and they shared in all the technological improvements in transport that took place at this time. The massive suburban development of the nineteenth century was not mainly the result of improved travel facilities rather such facilities were only provided when prior house building had created a large body of potential passengers. Most of the railways opened in this period were built as part of main lines whose principal business was from freight or from long distance passengers. Even when a line was promoted to encourage house building, the houses were not built until land closer to London was used up. Of the other forms of transport the horse omnibus was restricted to a middle-class clientele by high fares, and the river steamers, although cheap, were of only limited value because of the seasonal nature of the service. The need to generate profits confined the horse-drawn tramcars to areas already well stocked with houses, and the efforts of the L.C.C. to push the electrified tramways into undeveloped localities was hampered by middle-class opposition. Although improvements in transport assisted in the process of urban development, they were not its prime cause. The timing and nature of urban growth were influenced by many factors which vary in importance from estate to estate; these factors included the pattern of landownership and the nature of local tenures, the policies of landowners and the course of the national and

metropolitan building cycles. The ultimate character of the suburbs was controlled by fundamental influences such as the type of development that had already occurred in adjacent, older parts of the city, and by the local topography, especially by the height of land above sea level.

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J.E. Smith 27.9.1986.

Maps.

Graphs.

Illustrations.

CHAPTER 1

Introduction and Review

In the years between 1830 and 1914 London grew dramatically in both population and in extent. At the same time the technology of transport advanced to such a degree that by 1914 it was possible to travel at six times the speed that was available in 1830, and the cost of travel had been so reduced as to bring at least occasional journeys within the reach of the majority of the people. It is tempting to link improvements in travel with the expansion of the metropolis, and to believe that these improvements were a major cause of this expansion. This study will try to show that far from causing suburban growth, advances in the facilities for travel usually followed house building, and that the nature of the public transport available was a result of the type of development that had already taken place, whether it was middle-class villas, or terraces for the lower middle or upper working-classes. The railway in particular has been singled out as the prime mover in the growth of suburbs, but nearly all railway lines were built for reasons other than to encourage migration from the centre to the edge of town. These reasons include the development of freight and long distance passenger traffic, or simply to stop one railway company from entering another company's territory! Even when a landowner promoted the construction of a railway across his estate as an incentive to builders, the houses did not automatically follow. The omnibus, which was horse drawn almost to the outbreak of the First World War, with its high fares, and late starting times, was always a middle-class means of travel, and the river steamer, although cheaper than the bus, was limited in its impact by the vagaries of the weather and the winding course of the Thames. The tramcar had perhaps the best claim to be a promoter of

suburban development, but the privately promoted horse tramways were generally laid through districts where custom already existed; even when the London County Council attempted to extend the electric tramway network, in order to assist movement out of the overcrowded centre of London, its efforts were often thwarted by middle-class opposition which was able to delay the coming of the tram, and to exclude it completely from certain choice localities.

This is not to say that the expansion of the means of transport in the nineteenth century played no part in the way that the suburbs grew. The railway in particular, by its actual presence on the ground, profoundly influenced the course of development; embankments and cuttings partitioned building estates, and viaducts and sidings cast a blight over whole localities. This was especially so at the approaches to the metropolitan termini where sidings, depots, and goods yards covered vast tracts of land. Another form of blight was occasioned by the preference of the promoters for cheap land; this led them to seek out the commons, so damaging these much needed open spaces. A more positive influence was exercised where depots, both railway and tramway, gave employment, particularly in those parts of the town where the railway companies chose to build their locomotives and carriages.

So improved means of travel must be relegated to being just one cause among many of the expansion of the city: These causes are many and varied, and differ in their importance from one suburb to another. Such factors include the pattern of landholding, whether the land needed for building was owned in large consolidated estates or scattered among many small proprietors, and the custom of land tenure, whether an estate was freehold or leasehold. The policy of the landowner could also have a

bearing on the way that the suburb developed; a poorly drawn up lease for example, could permit the erection of low value houses against the wishes of the landowner. Suburbs did not develop in isolation, and the timing of building was usually dependent on the general building cycle of the metropolis, which in its turn was subject to the influences of the national and the international economies. There were also more fundamental factors bearing on the way that a tract of land was covered with houses and absorbed into the larger city; perhaps the most basic influence of all was the local topography, height above sea level, quality of drainage, and situation with regard to the centre of the town. It was difficult for the most conscientious landlord to turn an unattractive piece of land into a good quality housing estate, and even the most neglectful owner could not entirely ruin a really well-situated locality. It is also important to consider the historical as well as the natural topography of a potential suburb for once a pattern had been established in any given sector of the city, whether industrial, aristocratic, or middle-class, that pattern would tend to be repeated outwards, and to influence the way that more distant localities were developed.

Much has been written about the way that public transport was modernised in the nineteenth century, and even more on the way that the great cities of Victorian England spread over the surrounding countryside; the relationship between transport and suburban growth has also been extensively explored. It is helpful to examine this literature in four distinct groups: transport history, urban history, the history of the building cycle, and the history of housing.

A great deal of the writing on the history of transport is either the story of engineering progress, the narrow study of the fortunes of

individual railway and tramway compnaies, or often pure nostalgia. When the writers of popular transport history have considered the social consequences of railway or tramway building at all, they have assumed that the mere provision of the means of travel to town, either by train or tram, has automatically led to the growth of a suburb. Thus H.P. White (1963)[1] in his detailed account of the growth of the railway network of London, has described the inner suburbs as the 'creation of the steam suburban railway'; similarly H. Pollins (1964)[2] has said that 'There is much to be said for the view that the ecological structure of London was determined to a large extent by the kind of transport facility available, and by the level of fares.' A comparable view is expressed by Jack Simmons (1973)[3] who sees the railway as contributing positively to the growth of suburbs, and workmen's fares as enabling the working class to move into the suburbs. Similarly W. Ashworth (1964), (1966)[4] in his studies of suburban Essex, has emphasised the part played by the cheap travel policy of the Great Eastern Railway in the building of suburbs like Walthamstow, Little Ilford, and West Ham. If Simmons and Ashworth see workmen's trains as the way that the worker could escape from overcrowding in the city centre, John P. McKay (1976)[5] reserves this role for the electric tramcar. In a survey which compares the impact of the electric tramcar on cities in America, Great Britain, and on the continent of Europe, McKay regards the electric tram as the true beginning of urban mass transport, and its introduction as a change of the same magnitude as the Industrial Revolution itself. This is surely an exaggeration, especially in the case of London, where middle-class opposition was successful in restricting the expansion of tramways in the suburbs, and preventing their entry into either the West End or the City. McKay ignores the fact that in the horse era at least, the tram was a middle-

class means of travel in England, and the London middle class of the 1870's and 1880's was already well served by railways and horse omnibuses. An equally positive but more restrained view of the tram as a factor in the development of suburbs is taken by A.D. Ochojna (1974)[6] in his thesis on the economic and social history of the British tramcar, particularly in Glasgow and Edinburgh. Ochojna found that in both cities the tram remained a middle-class form of transport despite the efforts of the authorities in Glasgow to encourage its use by workmen. In this respect these cities differ from London where the tram was seen by the middle class as a threat to property values.

Other historians of transport have seen a positive, but more complicated relationship between the improvement of transport on the one hand, and the extension of the town on the other. In particular, Barker and Robbins (1963, 1974)[7] in their comprehensive history of all aspects of London transport. They admit that it is difficult to prove a direct causal link between the introduction of a railway or tramway and the building dates of any given suburb, but they hold that the inner suburbs depended on the omnibus and the tram, and that the introduction of the electric tram was an essential accompaniment to the housing boom of the years 1898 to 1903. H.J. Dyos, (1953)[8] in an early study of the consequences of workmen's fares for the growth of south London, believed that cheap travel made a positive contribution to development after 1880. But he felt unable to quantify this contribution because of the difficulty of isolating the impact of cheap travel from that of rising real wages and shorter working hours. But the most powerful voice against the argument that better transport led directly to house building is provided by J.R. Kellett (1969)[9]. In a thorough review of all aspects of the impact of railways on Victorian cities, Kellett finds that the railway companies

were less than enthusiastic about providing suburban services; even the Great Eastern, whose network of suburban trains was the most complete in London, preferred to carry middle-class passengers who paid in full and in advance. For Kellett it is the owner of the land who is the major influence in determining the timing and the character of the suburbs for the landowner could decide whether a railway station was built or not. It is true that an especially powerful proprietor could block the provision of a railway service for a time, and it is equally true that a landowner could not bring about the development of his property merely by building a railway if other circumstances were not favourable.

The question of communications has also been considered at length by urban historians. The study of urban history freed itself from its antiquarian past and came of age with H.J. Dyos' study of Camberwell. H.J. Dyos (1961).[10] Since 1961 his methods have been used to unravel the history of a wide range of localities from cities to suburbs, and even individual estates. Dyos accepted that good means of access for both passengers and goods were essential for the growth of a suburb, but he found it impossible to say that any given estate owed the time of its building to the introduction of a particular transport facility. For Dyos it was the owner and his chosen developer who determined when the houses should be built, and the type of houses as well. But neither the owners of the land nor the speculative builders were entirely free agents, for the local topography and the presence of unwelcome neighbours could cause them to modify their plans. Other urban historians have been more ready to ascribe the growth of suburbs to the introduction of a railway service; Christopher Trent (1965)[11] claims that the coming of the railway preceded and determined the growth of suburbs, and he uses Bromley as an example of a town that failed to expand because of the lack of a railway. Similarly,

E.M. Rolfe (1967/68)[12] in a study of the development of south-east London between 1836 and 1914 says that 'it is reasonable to assume that where houses were built in 1870 or later in areas lacking effective bus and tram services, they must be railway suburbs! But the opening of a railway station before development does not mean that this development took place because of the railway service.

Perhaps the strongest case for a positive role for transport improvements in fostering the growth of suburbs is made by Sam Bass Warner Jnr. (1962)[13] in his study of the growth of Boston. Warner shows that many of the suburbs of Boston owed their origins to the earlier introduction of electric streetcars. But Boston differed in many important ways from London, particularly in the operation of the land market, and its relationship to improved means of transport. In Boston no attempt, public or private, was made to control building, and most land was freehold. Unlike their counterparts in English cities, tramway promoters in Boston were prepared to lay tracks in advance of demand and, occasionally, a developer would promote a tramway to encourage building. The nearest equivalent to the American model is provided by Hugh G. Gayler (1970)[14] in his account of the growth of south-east Essex between 1830 and 1940. Here the low price of agricultural land and the willingness of the railway company to run services in advanceof demand, led to the sale of land in small plots, and the erection of shacks and bungalows. But the custom that came from these plots was holiday and excursion rather than true commuter traffic. It is important not to go too far in denigrating the part played in the growth of the suburbs by better access to town, particularly by railway. Donald J. Olsen (1976)[15] in a wide ranging history of the growth of Victorian London, written from an architectural

point of view, has pointed out that, especially in the case of middle-class households with a large number of servants, it did not require many commuters to create a suburb.

Nevertheless, the majority of urban historians have looked beyond transport improvements to explain the timing, pace, and nature of urban expansion. A favourite explanation has been that of the pattern of land use and the policies of landowners and property speculators. For example, David Ward (1962)[16] using the nineteenth-century tithe surveys, has shown that the pre-urban pattern of landholdings has determined the modern street plan of Leeds, irrespective of whether that pattern was one of small holdings or large estates. Similarly, M.J. Mortimore (1969)[17] found that in Bradford the prevailing arrangement of small freehold estates suited the builders of working-class houses. One of the strongest cases for the controlling influence of the ground landlord in the timing, and the way suburbs grew was made by F.M.L. Thompson (1974)[18] in his detailed history of nineteenth-century Hampstead. After the landlords, Thompson sees the developers and builders as responsible for ensuring that the value of property was maintained and a middle-class estate once began, retained its character. But Hampstead is unusual in a number of ways, it was composed almost entirely of large estates, either settled or corporately owned, where detailed control was exercised; and the parish's exceptional elevation made it easier to defend its middle-class exclusiveness. Other scholars who strongly emphasise the importance of the policy of landowners include M.J. Daunton (1977)[19] in his study of growth of nineteenth-century Cardiff, he sees transport as less important in determining the timing of building than in stressing class boundaries, and Michael Jahn (1982)[20] who in his thesis on the suburban development of outer west London, found that the influence of transport was largely

negative, in that the prospects of an estate could be blighted if a promised railway service failed to come.

But is is possible to hold that transport did not play a vital role in stimulating the growth of cities without concentrating on aspects of landownership. Peter John Page (1972)[21] in his thesis on the influence of public transport on the growth of Edinburgh, unlike Ochojna, could find no correlation between an improvement in travel and the development of estates, and M. Simpson (1972)[22] in his study of the growth of the West End of Glasgow, found that improved transport facilities followed rather than led suburban development. Similarly, in the case of the inner suburbs of west London, D.A. Reeder (1968)[23] showed that better means of travel played little part in stimulating growth at least until the introduction of workmen's trains at the end of the century. For Reeder one of the most powerful influences in deciding the character of the suburb was the established character of neighbouring localities closer to central London. For David Cannadine (1980)[24] it is topography and the economic structure of the city, that have the final say in deciding the ultimate nature of a locality. His researches into the history of the Birmingham suburb of Edgbaston showed that the stringent control exercised by the owners of the property, the Calthorpe family, could uphold the exclusivity of the estate for a long time, but in the end that exclusivity would be breached when the decline in the political power and economic influence of the landlords, in relation to Birmingham Corporation, allowed the trams on to the estate. David Cannadine (1977, 1980)[25] has also compared the pattern of urban development in English cities with the growth of cities in the U.S.A. He found that in America, where the greatest rise in population took place after the introduction of mass transport, the streetcar accompanied and created segregation by class. In

England, where the greatest growth in population happened before the coming of cheap transport, the tram merely intensified an already existing pattern of segregation. In the second study Cannadine found that, while the policy of the proprietor was important, at the level of individual estates, 'There, (America) as much as in England, topography and the economic substructure of the urban community took precedence in determining how the land was utilised.'

Most recent urban histories, though surprisingly not Thompson's history of Hampstead, stress the importance of the cyclical nature of the building process, and much work has been done to explain this cycle, and to link the peaks and troughs of house building with more general economic and technological developments. One of the earliest studies of the building cycle is that by Walter Isard (1943)[26] who claimed that in north America at least, each peak in the building activity could be associated with a new departure in the technology of transportation such as the introduction of first canals, then railroads, tramways and automobiles. Other economic historians have been interested in the relationship between the building cycles of the U.S.A. and Great Britain, and they have believed that investment alternated from one economy to another. Typical of this school of thought is E.W. Cooney (1949, 1960-61)[27]. In his 1960-61 article Cooney argues that this inverse relationship began with the American Civil War and the London building boom of the 1860s. On the other hand, S.B. Saul (1962-63)[28] claimed that investment in housing was largely determined by causes special to the domestic housing market, and not just a residual activity, when other possible investments seemed unsafe or likely to offer a poor return. But the possibility of a connexion between urban transport and the peaks and troughs of the building cycle has not been neglected. H.J. Habbakuk (1962)[29] says that although the introduction of the horse

tram in the 1870s was the product of the housing boom of the 1860s, the electrification of the trams from the 1890s onwards gave a stimulus to house building. The contributions to the debate cited so far are very general in nature, but the most thorough study of the part played by the building cycle in the economic life of Britain, that of J.Parry Lewis (1965)[30] has shown that there was not one simple national building cycle, but almost a separate cycle for each major town, which depended for its peaks and troughs as much on the ups and downs of the local economy as on the changing fortunes of the national economy. In the case of building in London, Parry Lewis assigns a positive role to transport in the stimulation of building activity, in particular he agrees with the view expressed by H.H. Gordon (1918)[31] that the growth of horse tramways in London from 1876 onwards helped to boost the housing boom of 1880-81. Sheppard. Belcher and Cotterell (1979)[32] in their study of the building cycle, based on entries in the Middlesex and Yorkshire registers of deeds, claim that innovations in transport, in particular the spread of horse tramways in Middlesex in the 1870s stimulated the building boom at the end of the decade. They further explain the fact that electrification of the tramway system in the first decade of the twentieth century did not sustain the housing boom which began in 1898 by overbuilding leading to a surplus of houses.

Historical geographers as well as economic historians have been attracted to the subject of the urban building cycle. For example, there is the work of J.R. Whitehand (1972, 1975)[33]. In the first paper Whitehand holds that public institutions were able to build closer to the urban fringe in times of slump than in times of boom, and in the second paper, that plot sizes tended to be smaller in times of housing boom than in times of slump. Whitehand's work was criticised by M.J. Daunton (1978)[34] on the

grounds that insufficient attention had been paid to the role of the landowner, the nature of tenure, and the availability of capital. Indeed, Whitehand's whole approach is highly theoretical, and places too little emphasis on the peculiar economic and social conditions ruling in any given locality.

The peaks and troughs of the building cycle are of course not just figures, but they had a direct bearing on the number and quality of houses available for people to live in and, therefore, have a part in the history of housing itself. The provision of accommodation has been the subject of study at least since 1918 when J. Calvert Spensley (1918)[35] used historical data from 1871 onwards in his paper on housing needs after the war. Since then interest has centred on how slums were created, and on the philanthropic and legislative measures taken to improve the living conditions of the working class. Gareth Stedman Jones (1971)[36] in his account of class conflict in late nineteenth century London, attributes the growth of slums, especially in east London, to demolitions for railways and commerce which compressed the casual workers into a decreasing housing stock. Such workers were prevented from migrating to the suburbs by a lack of travel cheap enough for them to afford and their need to be close to the sources of employment. Similar conclusions were reached by Colin G. Pooley (1982)[37] in his study of residential differentiation in Victorian Liverpool. Dyos and Reeder (1973)[38] go even further and claim that the very creation of the middle-class suburbs led directly to the production of slums, because the building of villas utilised capital that could have been paid out in wages, and monopolised cheap building land on the fringes of the city. This explanation may have a general validity but it makes too stark a contrast between suburb and slum, paying insufficient attention to the actual grading of the housing

stock, and to the deterioration of once middle-class accommodation into slums.

Much too has been written on the various measures taken to improve the living conditions of the working class. A great deal of this writing has seen the provision of subsidised housing as the only solution to the problem, and the history of housing in the nineteenth century as an inevitable progress towards this end. The most comprehensive study of housing in Victorian London is that by Anthony S. Wohl (1977)[39]. Wohl deals in detail with the creation of the slums, the attempts at improvement by sanitary legislation, the efforts of the philanthropic housing trusts, and the final intervention of the L.C.C. and the borough councils. But even in this thorough work philanthropic and local authority housing is given undue emphasis, for even in 1914, this type of provision supplied only a small proportion of the total housing stock; the housing needs of the great majority of the poeple, if they were met at all, were satisfied by speculative builders working for their own profit. H.J. Dyos (1966)[40] in a pioneer study, has shown how, especially at the crest of the housing booms, most of the houses were built by a great army of small building firms. But as the century advanced the larger firms took over more of the work, and by 1897 seventeen firms were building more than 40% of new houses in London. Avner Offer (1981)[41], in a wide ranging review of the relationship between land, law, local taxation and politics, has also stressed the importance of the private landlord. Offer is particularly concerned with the early twentieth-century property slump, and he attributes this to the growth of other outlets for capital, falling demand, rising local taxation, but above all to political action, especially the campaign to tax land values, which together with rising local taxation, made house property a less attractive form of investment.

M.J. Daunton (1983)[42] in an equally thorough study of the relationship between landlords, tenants, and local authorities, accepts Offer's account of the difficulties of the landlords before 1914, but he contends that it was wartime rent control that prevented the private landord from continuing to be the main supplier of working-class housing. Daunton's work is based on provincial examples, and it is difficult to see how, in London at least, the private landlord could have supplied adequate housing at a profit to himself, and at a rent that the majority of workers could afford.

As in the case of the building cycle, the history of housing has also attracted the attention of those scholars who have sought to replace what they see as the idiosyncratic accounts of individual towns given by historians, by a general theory. Good examples of this genre are the writings of R.G. Rodger (1979, 1979, 1979, 1982).[43] In the first work cited he spports Whitehand's thesis of the urban fringe with examples from Scotland. But in the other three papers Rodger discusses the influences that led to variations in the pattern of urban development between England and Scotland, and between individual towns. These influences included differences in legal systems and land tenure, the internal structure of the building industry, and the activities of trades unions. Another example of this theoretical approach is Peter J. Aspinall's (1982)[44] researches into the structure of the building industry.

This thesis sets out to test the hypotheses stated at the beginning of this introduction, together with some of the ideas discussed briefly in the review of the literature, against the evidence from a small locality, part of the south-western suburbs of London. The study area consists of the historic parishes of Battersea, Wandsworth, and Putney, which adjoin each other on the south bank of the Thames. That part of the study

area closest to London is the eastern corner of Battersea, which lies no more than a mile from Westminster Bridge, and its most distant point, the south-western corner of Putney, is about seven miles from Whitehall but only two and a half miles from Kingston. The three parishes have more in common than proximity. From 1855 to 1887 they shared a common local authority being, with Streatham, Tooting and Clapham, under the overall care of the Wandsworth District Board of Works, and from 1965 onwards, with parts of Streatham and Tooting but not Clapham they have formed part of the London Borough of Wandsworth. Another characteristic, important for the study of transport, is the fact that the largest railway company in south London, the London and South-western Railway, had stations in all three parishes.

Apart from these similarities there were important differences between the three parishes; Battersea and Wandsworth retained common fields into the nineteenth century, Putney did not, and Putney escaped the measure of industrialisation that took place in the other two parishes. Because of both the features that they shared and the contrasts between them, the parishes of Battersea, Wandsworth, and Putney form an excellent area in which to test hypotheses on the relationship between transport and suburban development in the nineteenth century.

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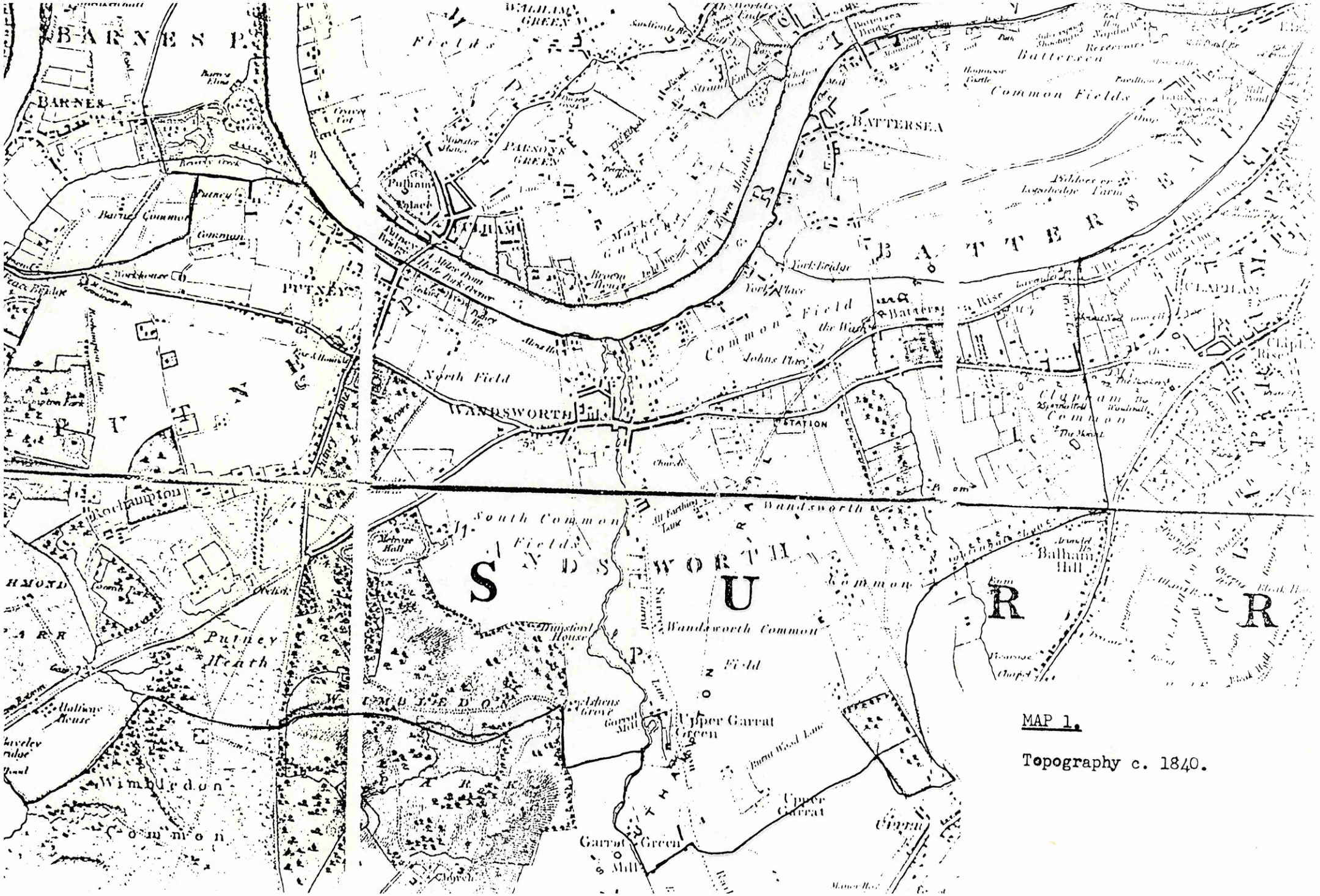
CHAPTER 2

Battersea, Wandsworth and Putney in 1831

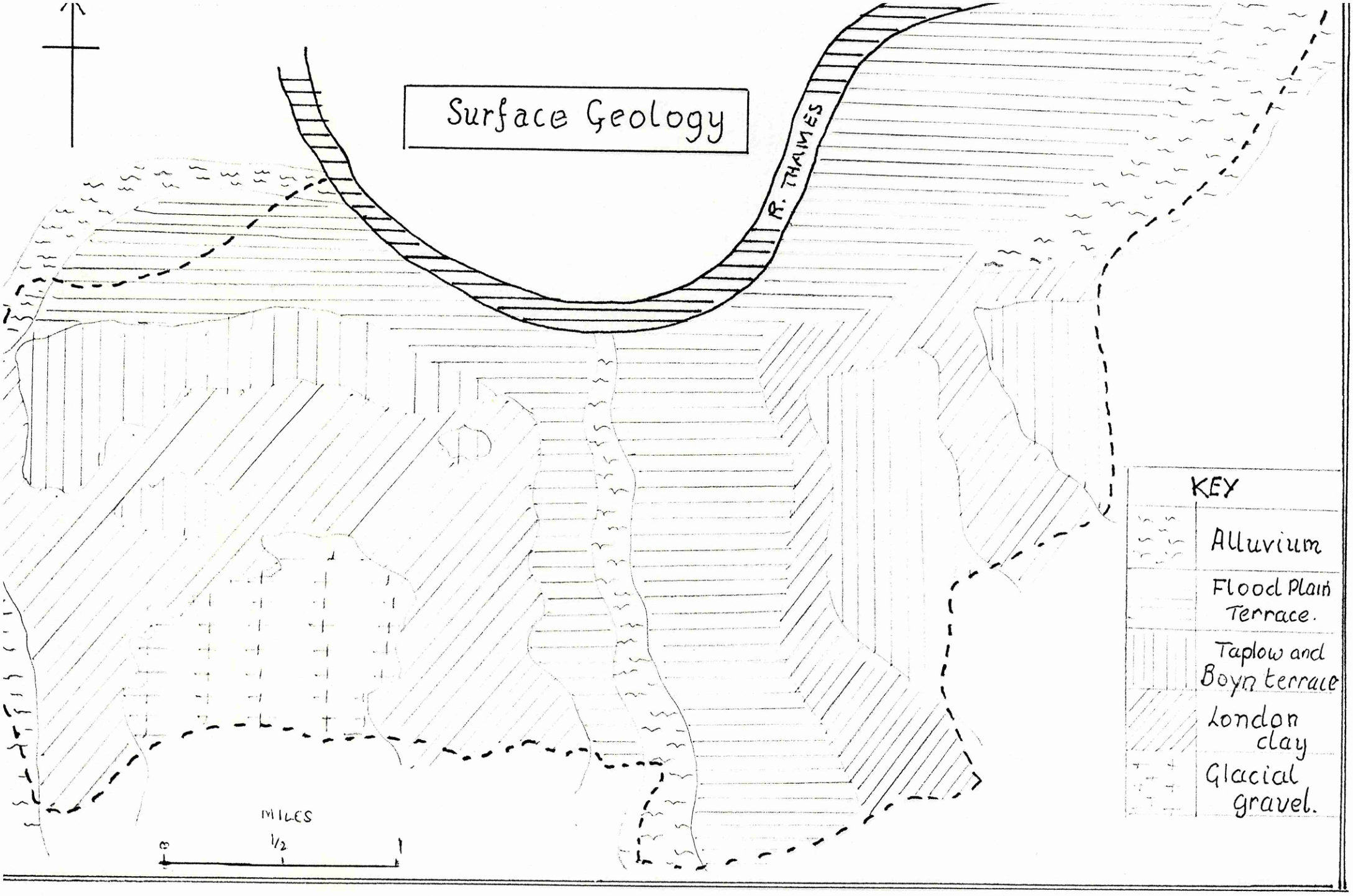
This chapter describes the study area on the eve of the railway age, before the large scale suburbanisation of the second two-thirds of the nineteenth century. The timing, pace and form of suburban development was determined to a considerable degree by conditions that were present before mass building began; these conditions include the physical environment, the situation of the locality, both in relation to neighbouring parishes and the metropolis itself, and the pattern of land ownership. Aspects of the history of the previous fifty years were also important, in particular the increase in employment opportunities in the three parishes, and the introduction of facilities for travel outside the immediate locality.

The topography of the area is relatively uncomplicated, without any prominent physical features. Bordering the Thames is a flat, marshy plain; about a mile wide in the Battersea bend of the river, but only a quarter of a mile wide at Putney. The limits of this plain are marked by an escarpment which rises to a plateau about 100 feet above sea level; on the summits of this plateau lie Clapham and Wandsworth Commons. In the south-west of the area the combined open spaces of Wimbledon Common and Putney Heath rise to a height of 175 feet. This high ground, which occupies the southern half of each parish, is broken into three distinct blocks by three rivers which flow northwards to the Thames. In the east is the Falconbrook which today runs entirely underground; it divides Clapham Common on the east from Wandsworth Common to the west, and after flowing past the later site of Clapham Junction station, turns west to enter the Thames at Battersea Creek. The Wandle is a much more


BARNES P.
BARNES
Barnes Common
Common
PUTNEY
Putney
Putney Heath
Wimbledon
Common
Roehampton
Roehampton House
Putney Bridge
Fulham Palace
Bishop's Walk
Bishop's Avenue
Bishop's Park
Fulham Palace Road
Fulham Pottery
Fulham Cemetery
Fulham Workhouse
Parsons Green
Parsons Green Lane
Fulham Bridge
Fulham Pier
Fulham Football Ground
Fulham Cross
Fulham Road
Fulham Gas Works
Fulham Police Station
Fulham Public Baths
Fulham Vestry Hall
Fulham Town Hall
Fulham Workhouse
Fulham Infirmary
Fulham Union Workhouse
Fulham Union Infirmary
Fulham Union Offices
Fulham Union Schools
Fulham Union Chapel
Fulham Union Cemetery
Fulham Union Mortuary
Fulham Union Dispensary
Fulham Union Relieving Office
Fulham Union Vaccination Office
Fulham Union Registrar's Office
Fulham Union Coroner's Office
Fulham Union Surveyor's Office
Fulham Union Clerk's Office
Fulham Union Treasurer's Office
Fulham Union Master's Office
Fulham Union Matron's Office
Fulham Union Porter's Lodge
Fulham Union Gatehouse
Fulham Union Boundary
Fulham Union Parish
Fulham Union Ward
Fulham Union Division
Fulham Union Constable
Fulham Union Overseer
Fulham Union Churchwarden
Fulham Union Vestryman
Fulham Union Rate
Fulham Union Poor Rate
Fulham Union Highway Rate
Fulham Union Lighting Rate
Fulham Union Watching Rate
Fulham Union Paving Rate
Fulham Union Sewerage Rate
Fulham Union Drainage Rate
Fulham Union Water Rate
Fulham Union Gas Rate
Fulham Union Electricity Rate
Fulham Union Telephone Rate
Fulham Union Telegraph Rate
Fulham Union Post Office
Fulham Union Letter Box
Fulham Union Pillar Box
Fulham Union Wall Box
Fulham Union Receiving Box
Fulham Union Collection Box
Fulham Union Delivery Box
Fulham Union Postman
Fulham Union Letter Carrier
Fulham Union Mail Coach
Fulham Union Mail Cart
Fulham Union Mail Van
Fulham Union Mail Train
Fulham Union Mail Steamer
Fulham Union Mail Packet
Fulham Union Mail Boat
Fulham Union Mail Ship
Fulham Union Mail Liner
Fulham Union Mail Tender
Fulham Union Mail Yacht
Fulham Union Mail Barge
Fulham Union Mail Lighter
Fulham Union Mail Tug

substantial river and its course is still completely above ground. Rising from the dip slope of the North Downs near Croydon about ten miles south of its junction with the Thames, the Wandle flows through Mitcham and Tooting before entering Wandsworth where it divides that parish into two almost equal halves. The broad flood plain, about a mile wide, separates Wandsworth Common on the east from Wimbledon Common and Putney Heath to the West. The third and most westerly river is the Beverley Brook, like the Wandle still above ground, and the most rural in aspect of all the local rivers. The Beverley Brook flows between Wimbledon Common and Richmond Park, and forms the western boundary of Putney parish for much of its course. There was a fourth watercourse which is now simply a part of the sewage system of London and, because unlike the Falconbrook it has left no valley, it is almost forgotten. This is the Heathwall Sewer which left the Falconbrook at the point where that river emerged from the escarpment, and ran eastward to enter the Thames at Nine Elms. The Heathwall Sewer, which was still above ground in 1845,[1] maybe in part at least, artificial, a dyke constructed to drain Battersea Marsh.[2]

The geology of Battersea, Wandsworth and Putney, like the topography, is uncomplicated. Underlying the area, as it does the whole London Basin, is the London Clay; a stiff blue clay, poorly drained but lacking in springs and wells.[3] Over most of the study area the London Clay is covered by river gravels, but it is exposed in the valley of the Falconbrook between Wandsworth and Clapham Commons, and on the lower slopes of Putney Heath.[4] These river gravels, which consist of sheets of gravel and sand, are arranged in three terraces on either side of the river Thames. In places the gravels are covered by a deposit of brickearth which provides excellent soil for market gardening, but there are places where the sheet of gravel is very thin leading to patches of


Surface Geology
R. THAMES
KEY
Alluvium
Flood Plain Terrace.
Taplow and Boyn terrace
London clay
Glacial gravel.
MILES
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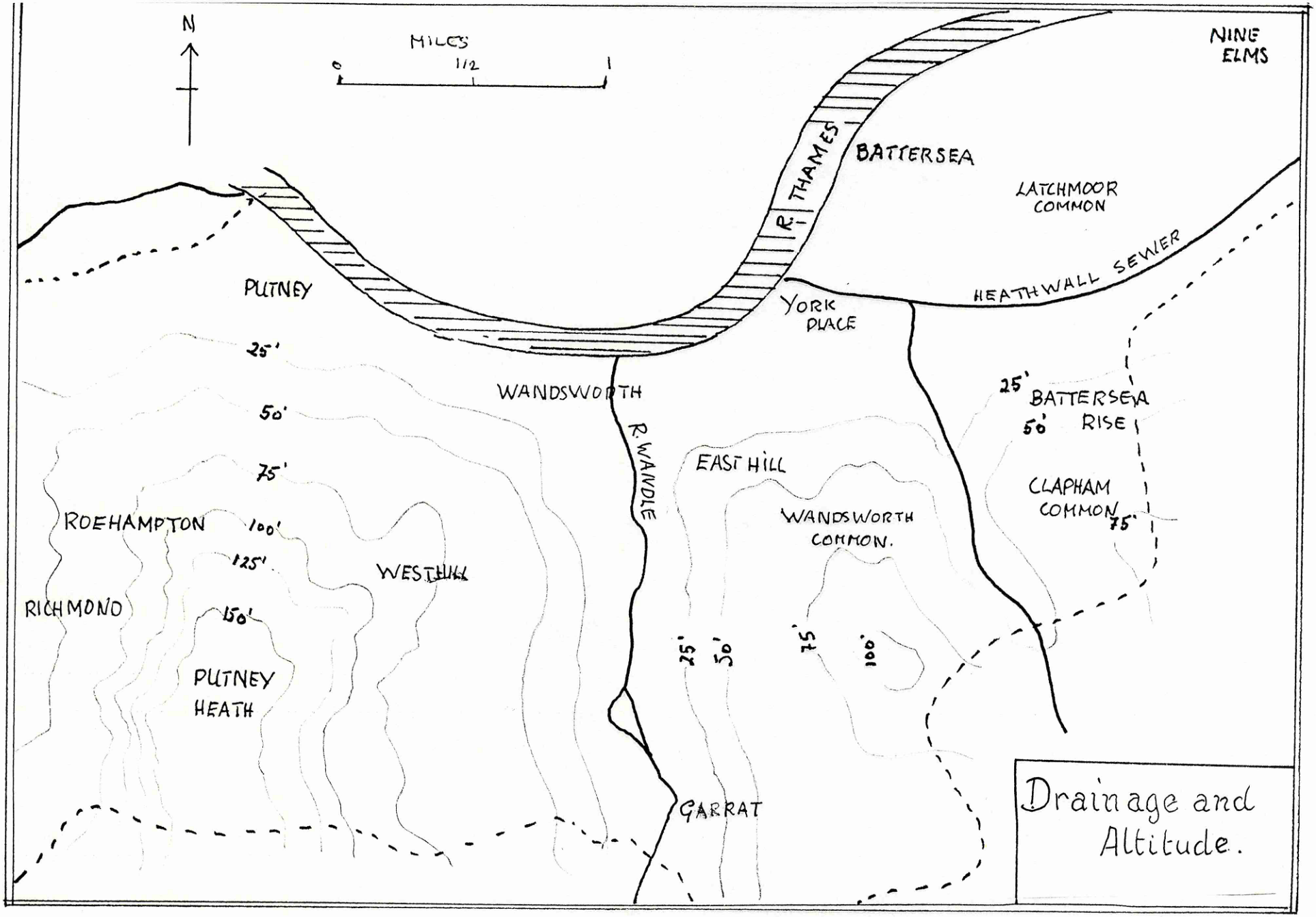
damp, marshy ground.[5] One such patch was Latchmoor Common in Battersea which remained unbuilt-on for about thirty years after the surrounding fields had been covered with houses. Another such damp patch is Putney Lower Common which is still a public open space at the present time. Although the geology textbooks speak of three terraces, only one is evident in our locality. The gravels of the lowest terrace, the Flood Plain Terrace, are below the current high tide level of the Thames, and form the wide, marshy plain of north Battersea, and occupy the ground between Putney Heath and the Thames; these gravels are also found on both sides of the river Wandle in Wandsworth. The two higher terraces, Taplew and Beyn Hill, merge to form the high ground of Wandsworth and Clapham Commons. The great open space of Wimbledon Common and Putney Heath, the highest ground in the locality, is formed by a glacial gravel consisting of small pebbles of flint and chert.[6] Finally, there is the alluvium, a fine silt which gives good farming land, but which has the disadvantage of being subject to flooding. Patches of alluvium are found in the valleys of the Beverley Brook and the Wandle, but not along the course of the Falconbrook.

The interest for this study of the distribution of clays, gravels, and alluvium lies less in the farming potential of the various soils produced than in the attraction or otherwise of these soils to the building developer. The least inviting to the builder of the local soils was the London Clay which suffered the twin disadvantages of poor drainage and uncertain water supply; indeed these problems effectively delayed development of the claylands of Middlesex until after 1918.[7] The gravel terraces did not suffer from these drawbacks although the Flood Plain Terrace, being below the high tide level of the Thames, was subject to flooding until the construction of the embankment in Battersea in the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MILES
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1
NINE ELMS
R. THAMES
BATTERSEA
LATCHMOOR COMMON
HEATHWALL SEWER
PUTNEY
YORK PLACE
25'
50'
75'
100'
125'
150'
WANDSWORTH
R. WANDLE
EAST HILL
25'
BATTERSEA RISE
50'
CLAPHAM COMMON
75'
ROEHAMPTON
WESTHILL
WANDSWORTH COMMON.
RICHMOND
PUTNEY HEATH
GARRAT
Drainage and Altitude.

early 1850s. The gravels of the higher terraces, especially on the escarpment, enjoyed good drainage and this, together with wide views and fresh air, made the fringes of the commons, in particular Clapham Common, popular for the siting of villas. The patches of alluvium, particularly those in the valley of the Wandle, were generally avoided by builders in the nineteenth century, partly because of the risk of flood, but also because the banks of that river had been extensively utilised by industry.

The area had been closely settled at least since Saxon times so, by the early nineteenth century, almost all the natural vegetation had disappeared. It was an open landscape with wide views, especially northwards in the direction of London, and with few trees which were either pollarded willows on the banks of the rivers, or ornamental varieties planted in the parks of the villas on the high ground. The commons, where the soil was unsuitable for either farming or market gardening, were used as common grazing. Such open ground available for exercise and recreation provided an added inducement to build on the edges of the commons. In 1794 James and Malcolm, who compiled the Surrey report to the Board of Agriculture, described the wide expanses of furze on Clapham Common, and suggested that it should be cleared and planted with ornamental trees.[8] Shortly after their report was published, this was done by Christopher Baldwin, a local magistrate and resident.[9] The fate of Wandsworth and Wimbledon Commons was to be decided in the 1860s.

The three parishes shared a common topography and geology but the pattern of landownership varied considerably from parish to parish, and the policies of landowners were influenced to a great extent by the nature

of the estates at their disposal. The earliest comprehensive surveys of landownership were those made for the redemption of tithes. Both maps and apportionments survive for each parish in the study area; the Battersea and Wandsworth awards date from 1838, but the Putney survey was not made until ten years later.[10] In the case of Battersea the tithe award covers 1604 out of a total of 2169 acres, Wandsworth 1947 out of 2433 acres, and Putney 1443 out of 2235 acres. The land not dealt with was either commons or waste land, or land already covered with high density housing. The following tables analyse the number of landowners and the size of their estates using the categories adopted by H.J. Dyos in his study of Camberwell and later by F.M.L. Thompson in his work on Hampstead.

Table 1. - Landownership 1838 - 1848

(1) Number of landowners.

(2) Percentage of all landowners.

(3) Area held in that size of estate.

(4) Percentage of total acreage less commons etc.

	Battersea				Wandsworth			
size of Estates acres.	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Under 1	36	22.5	18	1.2	60	38.5	30	1.5
1 - 4	58	36.3	151	9.4	54	34.6	119	6.1
5 - 9	23	14.4	157	9.8	8	5.1	55	2.8
10 - 24	30	18.8	455	28.4	20	12.8	309	15.9
25 - 99	11	6.9	538	33.5	10	6.4	433	22.3
Over 100	2	1.2	285	17.5	4	2.6	1001	51.4
Total	160	100.1	1604	99.8	156	100.0	1947	100.0
Commons etc.			565				486	

	Putney			
Size of Estates Acres	(1)	(2)	(3)	(4)
Under 1	8	13.3	5	0.3
1 - 4	15	25.0	39	2.7
5 - 9	8	13.3	59	4.1
10 - 24	10	16.7	146	10.1
25 - 99	15	25.0	632	43.8
Over 100	4	6.7	562	38.9
Total	60	100.0	1443	99.9
Commons etc.			792	

Size of Estates	Camberwell				Hampstead			
Acres	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Under 1	61	35.3	29	0.8	3	6.1	3	0.2
1 - 4	57	33.0	124	3.4	14	28.5	40	2.4
5 - 9	19	11.0	132	3.7	10	20.4	75	4.5
10 - 24	16	9.2	277	7.7	12	24.6	189	11.3
25 - 99	13	7.5	648	17.9	5	10.2	190	11.4
Over 100	7	4.0	2402	66.5	5	10.2	1169	70.2
Total	173	100.0	3612	100.0	49	100.0	1666	100.0

Sources:- Camberwell H.J. Dyos - Victorian Suburb (1961) p.41

Hampstead F.M.L. Thompson - Hampstead, Building A Borough (1974) p.75.

The first notable difference between the three parishes revealed by these tables is the variation in the total number of landowners; in Battersea there was a total of 160 proprietors, in Wandsworth 156, but only 60 in Putney. The inference that the ownership of land was concentrated in fewer hands and was in larger holdings in Putney than in either Battersea or Wandsworth is supported by an examination of the largest estates, those over 25 acres in area, probably the smallest acreage that could be developed in a comprehensive way. In Battersea thirteen landlords held estates over 25 acres, and these estates accounted for 51% of the titheable acreage. In Wandsworth fourteen landlords held 73%, and in Putney nineteen owners held 82%. In Camberwell 84.4% of the area was in estates greater than 25 acres and owned by twenty owners, whereas in Hampstead ten owners held 81.6% of the total.[11] In Hampstead the pattern of development in the Nineteenth Century largely

followed the West End model of planned building on a large scale with care taken to maintain the status of the estate. In Camberwell only the greatest landowner, Dulwich College, was able to follow this policy consistently, and most building was carried out in a more piecemeal fashion. In the study area of this thesis only Putney parish had even the degree of concentration found in Camberwell, which suggests that, provided the property pattern of the 1830s persisted, large planned housing estates are unlikely to be the rule in either Battersea or Wandsworth. The view that property in Battersea and Wandsworth, but not Putney, was more fragmented than in either Camberwell or Hampstead is further supported by looking at the number of very small estates, those less than four acres in area. In Wandsworth such properties accounted for 7.6% of the total acreage and were shared among 114 owners. In Battersea the figures were 10.6% of the total acreage divided among 94 owners. On the other hand, in Putney only 3.0% of the titheable acreage was in properties of less than four acres and was shared among only 23 owners. This proportion was very similar to that found by Thompson in Hampstead where 17 owners held estates of less than four acres, 2.6% of the total.

Dyos has pointed out that in Camberwell the number of owners increased and estates became more fragmented as the nineteenth century progressed;[12] this process had already begun in Wandsworth and Battersea by the date of the tithe surveys for in 1835 and 1836 Earl Spencer, the lord of the manor, sold most of his land in these parishes.[13] The sales of 1835/36 had their greatest impact on the larger estates. In Battersea in 1835, nine landowners held 60% of the total acreage, but in 1838 thirteen landowners held 51% of the total. The sales were of less consequence in Wandsworth; before the Spencer estate was broken up fourteen landowners owned 73% of the total; in 1835 twelve landowners

held 75% of the total. Thus there was certainly a greater concentration of landownership in Battersea and Wandsworth at the beginning of the 1830's than at the end of the decade, but still not such a degree of concentration as existed in Hampstead.

The size of a landowner's property was, of course, important, but unless it was held in sizable, compact blocks, orderly development would still be difficult to achieve. In Hampstead the Eton College, Dean and Chapter of Westminster, and the Eyre estates were all enclosed by inclusive boundaries with no small estates in between.[14] In the study area Putney had the most compact property pattern, but even in Putney the largest estate, which totalled 190 acres, was in four separate units. The ownership pattern in Battersea and Wandsworth was complicated by the survival of the common field system of farming. Battersea had one common field of 376 acres, 17% of the titheable land in the parish, which occupied most of the area between the river in the north and the Heathwall Sewer in the south, and from the High Street in the west to Nine Elms in the east. The common field was divided into furlongs, or shotts as they were called in Surrey, each shott being further divided into strips; there was a total of 37 shotts and 428 strips in Battersea Common Field. There had been little consolidation of ownership; in Stony Shott, by no means an exceptional furlong, there was 19.5 acres divided into 24 strips, owned by eleven different owners, and farmed by ten different occupiers.

The field system of Wandsworth was more conventional, consisting of three fields, Northfield of 103 acres, between West Hill and the Thames, Southfield 208 acres, between West Hill and Wimbledon Park, Bridgefield 46 acres, between East Hill and the Thames. The common fields of Wandsworth accounted for 18% of the titheable acreage.

Landed estates on the outskirts of the metropolis in the early nineteenth century may be divided into two types; there were those properties where farming for profit was of greatest importance, and where the landlord was usually an absentee letting out his land to tenant farmers, or those estates whose main reason for existance was to provide pleasant surroundings for a home occupied by a family for at least part of the year. William Stevenson writing in 1813, commented on the latter type of property in these words:-

> The demand for land near the metropolis is not in general for a large estate, to be considered as the family estate, or with a view to profit; but for ground sufficient for pleasure to correspond with the size and appearance of the house, or at most to indulge the new fashionable taste for picturesque improvement.[15]

The largest single holding in Battersea and Wandsworth at the beginning of the 1830s was that of Lord Spencer, lord of the manor, which totalled 900 acres, and which combined both the agricultural and residential features mentioned above. The Spencer property in 1830 was the culmination of the acquisition of manors over the preceeding ninety years: the family entered the study area on inheriting the manor of Wimbledon from the Duchess of Marlborough in 1744, this manor included the mansion of Wimbledon Park and its associated parkland which covered a considerable tract of land in the west of Wandsworth parish.[16] In 1763 John, Earl Spencer bought the combined manor of Battersea and Wandsworth from Lord Bolingbroke; in 1792 lands were acquired in the manor of Downs in Wandsworth, and in 1814 most of the Archbishop of York's estate in Battersea was added to the Spencer property.[17] The Spencer estate as it existed in 1830 was of two types of land; there were the woods and

pleasure grounds attached to Wimbledon Park, 125 acres in all, strips in the common fields of Battersea and Wandsworth, and enclosed farmland and market gardens in both parishes. In Battersea this enclosed land was in two separate blocks; the largest lay between the Wandsworth boundary and the border of Clapham, and between the High Street and the escarpment; it consisted of about 250 acres of good quality meadow and market gardens. A smaller parcel of land lay along the bank of the Thames for about a mile eastward from Battersea Bridge, here were timber docks, a vitriol factory, and the "Red House" tavern. Lord Spencer also owned the freehold of the silk factory which occupied part of the former manor house of the Archbishop of York at York Place. Most of the houses on the estate were let on long leases, up to 99 years, but the majority of the common field land was let on leases for three lives, a form of tenure rare in Surrey in the early nineteenth century.[18]

The Spencer estate was of a type already old-fashioned in 1830 and it was destined to be broken up in the next ten years; a property more typical of the estates in the three parishes at this date was the Southby lands in Battersea which remained intact, apart from the ravages of railway construction, until the 1860s. This estate consisted of 140 acres in thirteen adjacent fields in the north-east of the parish, with Longhedge Farm at its centre, and of 35 acres in common field strips. The estate was unusual for the locality being let to only one tenant. A good example of the residential type of estate is provided by the property of Henry Sykes Thornton who lived in "Battersea Rise House" on the west side of Clapham Common; surrounding the house were twelve acres of meadow, garden, and pleasure ground.

Wandsworth east of the Wandle and south of East Hill was all enclosed and divided among four landowners; there was considerable intermixture of fields, but this was reduced when the London and Southampton Railway was built across this part of the parish. South of West Hill and west of the Wandle most of the land was shared between Lord Spencer and the Duke of Sutherland who had a residence at Melrose Hall on West Hill. Putney had no common fields in the 1830's and was generally divided among consolidated estates, larger in the south of the parish around Putney Heath and the hamlet of Roehampton, than around the old village centre on the banks of the Thames. The estates on the edge of Putney Heath and Richmond Park shared many of the characteristics of Thornton's Battersea Rise property, although the grounds tended to be larger and the houses grander. One such property was that of the Earl of Bessborough who owned 109 acres on the north-eastern edge of Richmond Park; at the centre of the estate was the palladian villa of "Parkstead" built by Sir William Chambers in 1763.[19]

The structure of landownership and the distribution of estates in the three parishes of Battersea, Wandsworth, and Putney were not conducive to the creation of planned suburban development in the early nineteenth century for those lands nearest to the built-up area of London were the strips of Battersea Common Field, with its intricate pattern of ownership. The largest estates were those most distant from London, and were for the most part residential in character. While the owner of a residential estate would be interested in the profits likely to accrue from a successful building programme, considerations of amenity and personal convenience would also enter into his calculations. Different landlords might react in varying ways to the possibilities of turning their fields and gardens into streets and houses, but the first, vital,

stimulus in every case would be a rising demand for houses; such a demand would depend, at least in part, on an increase in population, both in the locality to be developed and in the London area as a whole.

The population of Battersea rose from about 1100 in 1664 to about 2160 in 1792, in Putney the rise over the same period was from about 1400 to 2294, and in Wandsworth from around 1600 to 4554.[20,21] The larger increase in Wandsworth being partly explained by the industrialisation of the Wandle Valley,[22] and the slower rate of increase in Battersea was, according to Lysons, due to the poor communications across the Thames before the construction of Battersea Bridge in 1773.[23]

The first national census was taken in 1801 and repeated at ten year intervals: the table below shows the total population for each census year between 1801 and 1831, and the percentage increase in each decade:-

Table 2. - Population 1801 to 1831

Parish	1801	% inc.	1811	% inc.	1821	% inc.	1831	Tot.inc.
Battersea	3365	31	4409	8	4764	11	5311	58
Wandsworth	+4445	27	5644	19	6702	3	6879	55
Putney	2428	19	2881	19	3394	12	3811	57
Total	10238	26	12934	15	14860	8	16001	56
Clapham	3864	32	5082	41	7151	38	9958	158
Newington	14847	61	23833	40	33047	35	44506	200
Lambeth	27985	49	41664	14	57638	52	87856	214

+ 1801 figure for Wandsworth believed to be incorrect, see text.

Sources:- PP HC 1801 (140) vol. VI p. 351
PP HC 1811 (316-17) vol. XI p. 326
PP HC 1822 (502) vol. XV p. 326.
PP HC 1833 (149) vol. XXXVII p. 630.

The printed abstract for 1801 is rather unreliable and in some cases less accurate than earlier counts; indeed the curate who took the census in Wandsworth parish claimed that the total population should have been printed as 4715 which accords better with the local census of 1792.[24] The overall increase in the population of the study area between 1801 and 1831 was a modest 56%, the largest rise occuring between 1801 and 1811. There seems to have been a considerable inward migration about 1800, but after 1801 the rise in population may have been due principally to natural increase. The small rise in population in the study area is in sharp contrast to the much larger rises experienced by three parishes which lay between Battersea and the Metropolis; Clapham, Lambeth and Newington. In the thirty years after 1801 the population of Clapham increased by 158%, Newington by 200% and Lambeth by 214%. The difference between Battersea, Wandsworth and Putney and those parishes lying closer to London is further demonstrated by a consideration of the number of persons per acre.

Table 3. - Density of Population (persons per acre). 1801 to 1831

Parish	Acreage.	1801	1811	1821	1831
Battersea	2169	1.55	2.03	2.20	2.45
Wandsworth	2433	1.83	2.32	2.75	2.83
Putney	2235	1.09	1.28	1.52	1.71
Clapham	1137	3.40	4.47	6.29	8.76
Newington	631	23.53	37.80	52.37	70.56
Lambeth	3941	7.10	10.57	14.63	22.29

Sources:- See Table 2.

The relatively low densities in Battersea, Wandsworth and Putney, even in 1831, compared with Clapham, Lambeth and Newington, are due in part to the large amount of common land in the study area, but the thin spread of population also shows how little urban development had taken place. The modest growth in population in Battersea, Wandsworth and Putney between 1801 and 1831 is paralleled by the sluggish increase in the housing stock compared with areas closer to London. Battersea and Wandsworth each added about 300 houses to their 1801 total, but in Putney only 200 houses were erected in the same period. In the same thirty years nearly 1300 new houses were built in Clapham.

The pattern of settlement in Battersea, Wandsworth and Putney mirrored to some extent, the two types of property holdings already discussed. There were the old village nuclei whose origins dated back to a purely agricultural economy, and a more scattered form of housing built from the eighteenth century onwards for those whose income or employment came mostly from outside the immediate locality. The original settlement of Battersea was around the parish church and manor house on the banks of the Thames, and by 1831 the village stretched for about half a mile southwards along the High Street to where it met the lower road from Vauxhall to Wandsworth. There were two outlying hamlets, Nine Elms connected by houses to Lambeth in 1831, and York Place which had for its centre the old manor house of the Archbishops of York, given over to a variety of industrial enterprises for the last one hundred years. The inhabitants of Wandsworth were mostly concentrated in the old town which had grown up where the road from London to Kingston crossed the Wandle. There was only one hamlet, Garratt, about a mile south of the town up the Wandle valley; Garratt had 50 houses in 1808.[25] The old village of Putney was similar in situation to Battersea, it ran from the parish

church on the banks of the Thames southwards along the High Street to the Upper Richmond Road. In the south of Putney parish, between the Heath and Richmond Park, was the hamlet of Roehampton, consisting of 63 houses in 1801.[26]

Building on a large scale on the south bank of the Thames began after the opening of Blackfriars Bridge in 1769 and the construction of new roads across St. George's Fields; a further boost to development was given by the opening of Vauxhall Bridge in 1816.[27] Sir John Summerson divided the suburban development of Georgian London into four types; the overgrowth of villages with large houses in and around the old centres, the construction of country villas, ribbon housing along the main roads, and estate development.[28] Ribbon housing was not extensive in the study area before 1831, but examples may be found of the other three types. Throughout the eighteenth century houses were added to the village centres by merchants and lawyers; examples still to be seen today include red brick terraces such as Church Row, Wandsworth Plain built in 1723, or detached houses like the "Retreat" in Battersea High Street. Planned housing estates were unknown in the locality before 1831, with one exception, Battersea New Town, which consisted, when developed, of 150 houses on three main streets running out of the south side of the Lower Road at the eastern end of Battersea Field. Building began in 1793 and there was little other activity in this part of Battersea until after 1845.[29]

But by far the most widespread form of development was the construction of villas, usually detached and set in their own grounds. The building of villas began in earnest in Clapham parish about 1790,

Lysons reports that forty new houses were built between 1788 and 1792, and he comments that:-

> The population of the parish appears to have increased in a much more rapid degree than any other whose history I have examined.[30]

The most favoured locations were on the edge of Clapham Common and the builders moved onto the west side of the common, which is in Battersea Parish, later in the 1790's. Villas were also built along the Wandsworth Road which was lighted by gas as far as the Battersea border in 1812.[31] There were smaller groups of villas on the east side of Wandsworth Common and at St. John's Place. Development in Wandsworth before 1831 was concentrated in the town itself and up East Hill, the road to Battersea; a new church St. Ann's, was constructed to serve the east side of the parish in 1822-24. The practice of building substantial houses in ample grounds had a long history in Putney, and by 1831 most of the north side of Putney Heath was occupied by such houses, indeed the hamlet of Roehampton lived pricipally by providing services for their occupiers. But in many cases, Roehampton House itself and Bessborough House for example, were more like gentlemen's country seats than suburban villas.

By 1831 the parishes that lay between the study area and London were rapidly being absorbed into the town, and as at least some of their growing number of inhabitants had the means to seek housing further afield, it was likely that development would spread into Battersea. The timing and pace of house construction, and the wealth and status of the new inhabitants would depend in part on the willingness of landowners to make land available for building, but also on the ability of the newcomers to find work near their new homes, or on the provision of facilities to enable them to travel outside the locality, especially to London, in search of employment.

The traditional form of work for most people in all three parishes was of course agriculture, and farming and market gardening still played a significant part in the employment structure of the area in the early nineteenth century. In 1831 17% of all families in Battersea were dependent on agriculture for a living, 20% in Putney, but only 10% in Wandsworth. In suburban Clapham agriculture gave work to only 1% of families. In Battersea there had been little change in the relative importance of agriculture as an employer of labour since 1811, but in Putney the farming section of the workforce had declined by 22% and in Wandsworth by 14%.[32] The greater part of the titheable land in all three parishes was described as either meadow or pasture, but those categories included the paddocks attached to the country houses and villas. Commercial agriculture was carried on in either arable farms or market gardens. Most of the arable land was in the open fields of Battersea and Wandsworth, Putney had little arable land in the 1830's. The arable acreage of Wandsworth had declined since 1801 by a third, but that of Battersea remained almost the same.[33] Market gardening was of only minor importance in Wandsworth, but in Battersea and Putney it was the most profitable way of cultivating the land. Stevenson, writing in 1813, attributed this prosperity to the good quality of the soil, ready access to quantities of manure, but above all to the proximity of the locality to the growing London market.[34] These conditions still held good in 1831, and such was the value of good market garden land that some gardens survived in Battersea long after the greater part of the parish had been covered with houses.

Only a little agricultural land was lost to housing before 1831 but some ground was taken out of farming and given over to industry. It is not possible to isolate the factory workers in the 1831 census

employment statistics from those engaged in domestic production, or indeed from those in retail trade, but it is likely that only a small proportion of the working population worked in factories at this time. What was important for the future was the presence of industry in clearly defined localities in the study area, for by occupying sites at a relatively low density, the early manufacturers made intensive occupation possible later in the century. The siting of some of these undertakings had a negative effect on the environment, for high value housing was unlikely to be attracted to the vicinity of soap works and potteries. The industries of early nineteenth century Battersea and Wandsworth, (Putney was never industrialised to the same extent), were located in two distinct areas, and were of three main types. The first area was the banks of the Thames; potteries, mills, and whiting works stretched westward along Thameside from Nine Elms to Battersea Fields where Tuggey's vitriol factory stood alongside the "Red House" tavern, neatly illustrating the conflict between industry and recreation for use of the river bank.[35] Factories were also to be found between Battersea Bridge and Battersea church, and from York Place to the mouth of the Wandle. Industrialists were drawn to the Wandle Valley by the availability of water power for the river flowed faster and with a greater volume of water than it does today. In 1806 their were 50 undertakings on its ten mile length,[36] and it was the opposition of the millers to a plan to canalise the Wandle that led to the promotion of the Surrey Iron Railway from Croydon to Wandsworth in 1801.

The industries of Battersea and Wandsworth can be divided into those that processed agricultural products, those related to textile manufacture, and those that may be described as the noxious trades. Of all the productive units in the locality the ones most dependent on farming were the corn mills, the largest of which were the Upper, Middle, and Lower Mills on the Wandle, below and above Wandsworth town; the

Upper Mill was the biggest corn mill in the neighbourhood of London after the destruction of the Albion Mills in 1791.[37] Also drawing their raw materials from the local farms were the breweries, found in all three parishes, and the distilleries; Watney's on the Wandsworth Thameside, and Hodgson's in the old manor house of Battersea where cattle were fattened on a mixture of grain and distillery waste.[38] Textiles, in particular the bleaching and dyeing of calico, had been important in the Wandle valley since the seventeenth century, but were in decline by 1831; only 128 workers were engaged in this trade by 1841.[39] Other textile related manufacturers were the bolting cloth factory established in Wandsworth town in 1783,[40] the silk factory which occupied part of the York House site, and Fowne's glove factory founded in Falcon Lane Battersea in 1777.[41] The noxious trades, those with unpleasant smells or polluting smoke had to be sited away from large concentrations of population, and so the proprietors of such works were attracted to the Thameside in Battersea; there was a soap works near Battersea Bridge and a pitch and turpentine plant on the river bank west of Battersea church.[42]

There is no way of knowing how many people in Battersea, Wandsworth and Putney travelled outside the immediate area to work; in the days before mass transport commuters were likely to be few in number and restricted to those wealthy enough to own their own carriages or to those that were not tied to regular office hours.

There had been a considerable movement of the middle class into the locality since the 1790s but the newcomers tended to be either men of independent means, retired merchants and lawyers, or men at the top of their profession such as Henry Thornton who lived in "Battersea Rise House" or Jacob Bell, the founder of the Pharmaceutical Society who lived

in the "Clock House" Wandsworth. Although such inhabitants formed only a small percentage of the total population, they were rich enough to generate considerable population growth by providing work, in the retail trades, among builders and decorators, but above all for domestic servants. Female labour in particular was in demand for domestic service, and women outnumbered men in all three parishes in 1831. In that year 10% of all women in Wandsworth, 13% in Battersea, and 17% in Putney were in service; in Clapham 19% of all women were servants. So in 1831 the great majority of the people of Battersea, Wandsworth and Putney were dependent on local employment and the communications of the district reflected that fact, they were those of a rural locality but one with strong economic ties to the approaching metropolis.

In the early nineteenth century travellers, from Battersea, Wandsworth and Putney, to London went by river or by road. The most direct road route was from London Bridge by way of Newington to Vauxhall. From Vauxhall the main roads branched; and the lower, or Battersea road, ran across Battersea Fields to Wandsworth town, the other, the upper or Wandsworth road, ran along the escarpment and over St. John's Hill to join the lower road in Wandsworth. After the crossing of the Wandle the roads divided again, this time into three ways, one across North Field to Putney Bridge, another along the higher ground to the southern end of Putney High Street and on to Richmond as the Upper Richmond Road; the third and most heavily used road ran up West Hill and over Putney Heath on its way to Kingston and ultimately to Portsmouth. Battersea and Wandsworth were also connected to the main roads to London by way of Battersea Rise, which ran along the north side of Clapham Common and through Clapham village to the road to Stockwell.

Two bridges joined the study area to the parishes on the north bank of the Thames; Putney Bridge opened in 1729, and Battersea Bridge opened in 1773. Both bridges were lighweight timber structures and both were subject to tolls; Putney Bridge contributed to communications with London for it linked Putney to the main road through Fulham and Chelsea to Westminster and so considerably shortened the travelling time to all points west of Charing Cross; Battersea Bridge on the other hand only connected Battersea to Chelsea village and did not reduce the distance to London.

The Kingston road, (Wandsworth Road and West Hill) was the busiest in the locality and had been the responsibility of the Surrey and Sussex turnpike trust since 1718.[43] This trust had avoided the consolidation that had taken place north of the Thames, and in 1833 Viscount Lowther, secretary to the Metropolis Roads Trust, complained that while a horse and gig could travel six miles north of the river for 3d, the same distrance south of the river would cost 6½d.[44] The majority of the roads in the three parishes were not turnpiked and remained the responsibility of the individual parishes.

In 1831 the only available public road transport was the short-stage coach. These short-stages were often long distance coaches that had seen better days, and they were operated in a way similar to their more illustrious cousins on the Bath and Brighton runs. Passengers had to book in advance at local offices, usually an inn; those paying the higher fare to travel inside were sometimes picked up at their own homes.[45] The short-stages were prevented from growing into a modern omnibus service by the monopoly of the hackney carriage proprietors which did not allow

coaches to pick up or set down passengers within the built-up area at any points other than the terminus of the route.[46] The following table shows the growth of short-stage services in the study area from 1786 to 1833:-

Table 4 - Summary of daily journeys by short-stage coach from London 1786 - 1833.

Parish	1786	1791	1798	1804	1809	1814	1818	1823	1828	1833
Battersea	6	13	12	20	21	15	16	15	23	22
Wandsworth	5	10	13	8	7	7	7	9	32	37
Putney	11	21	24	16	35	28	23	21	19	35
Clapham	10	16	16	28	21	23	27	30	65	104

Sources:- Lowndes Guide to Stage Coaches 1779 - 1798

Critchett's New Guide to Stage Coaches 1803 - 1833.

The table shows that while there were three times as many coaches to Battersea and Putney in 1833 as there had been in 1786, there were seven times as many to Wandsworth, and ten times as many to Clapham. Most services to Putney ran to the north side of Putney Bridge so a traveller from Putney to London had to add the cost of the bridge toll to the coach fare. Battersea was something of a backwater before 1831 but Wandsworth benefitted from being on the main road to Kingston. Both Battersea and Wandsworth had more journeys to the City than to the Charing Cross district, but most Putney servies began and terminated in the West End. The short-stage coaches cannot be considered as a true urban public transport system because of their small carrying capacity, the infrequent and limited nature of the service, but above all because of the high fares charged; in 1829 it cost 1/6d. to travel inside to Clapham from either the City or the West End.[47]

Road transport remained restricted to the speed of a horse until the end of the nineteenth century, but steam power had been introduced on the river Thames before the coming of the first railway to London. The river was an important means of transport to Battersea, Wandsworth and Putney, not only for providing a means of cheap carriage of goods, but for furnishing a relatively unrestricted way for passengers to Westminster and the City. The Watermen's Company of the City of London tried to protect their members' jobs; they opposed the building of Waterloo and Vauxhall bridges, and in 1812 the company was able to stop the operation of a steamer service.[48] This success was only temporary; for three years later a steamer service was inaugurated between London and Richmond:[49] by 1818 there were two steamboats running between London and Richmond, and in the four summer months they carried 10,000 passengers.[50] But steamers on the river remained a summertime pleasure service for the next twenty years, and it was not until the later 1830s that an attempt was made to operate a regular weekday service suitable to the needs of the worker and the businessman.

The public transport offered by both the short-stage coach and the river steamers was designed to meet the needs of the small minority of the population that could afford the high fares charged. In 1831 there was no question of initiating a service in advance of demand; even if anyone had such an idea the technology for mass passenger transport had only just been born. The first steam operated passenger railway in the London area was opened between London and Greenwich in 1836, and the first railway in the study area was completed two years later.

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Acreage Returns - 1801. - PRO HO/67/24.

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CHAPTER 3

The Foundation of the Railway System

The years from 1831 to 1851 saw major developments in the transport system of the study area. In this period the foundations of the railway network were laid with the construction of the London and Southampton and the Richmond Railways, the river steamers ceased to be used mainly for pleasure, and began to cater seriously for business journeys, and the short-stage coach was finally ousted by the horse-drawn omnibus. In the same twenty years industrial employment continued to expand, and major changes took place in the pattern of landownership, particularly in Wandsworth and Battersea. While these changes were taking place, the population of the study area as a whole rose by 60% and that of Battersea alone by nearly 100%. The housing stock, which stood at 2542 occupied houses in 1831, rose to 4210 occupied houses in 1851. It is the purpose of this chapter to examine the relationship between the development of the transport system, the growth of employment, and changes in property holdings on the one hand, and the increase in population and housing on the other.

The outline history of railway construction between 1831 and 1851 is straightforward: only two lines, the London and Southampton and the Richmond Railways, were opened: both lines eventually came under the control of the London and South-western Railway, (L.S.W.R), operating out of Waterloo. The London and Southampton Railway was authorised in July 1834[1] and was opened from the terminus at Nine Elms to Woking on the 12th May 1838:[2] the complete line to Southampton was finished two years later. The Richmond Railway was authorised in July 1845,[3] and was opened from

Richmond to Nine Elms on the 22nd July 1846.[4] Nine Elms proved inadequate as a terminus, and an extension to a site near Waterloo Bridge was sanctioned in July 1845,[5] and opened on the 11th July 1848.

Neither the London and Southampton Railway nor the Richmond Railway were promoted as suburban railways that expected to get most of their revenue from carrying passengers from new suburbs to offices in London. Most of the backing for the London & Southampton Railway came from merchants in Southampton who were seeking ways to revive the flagging fortunes of their port. The company realised that Nine Elms was unsuitable as a terminus for suburban traffic, and stated in a report to shareholders in 1837:-

> The Wandsworth coaches and omnibuses are omitted because it is doubtful, (considering the terminus of the railway, and the way it passes Wandsworth) whether for so short a distance the Railway will offer equal advantages with the present conveyances.[6]

The Richmond Railway, although only ten miles long, was seen as a holiday rather than a suburban line. The riverside resort of Richmond had been popular with Londoners for at least a hundred years, and the number of summer visitors had grown rapidly after the introduction of steamer services in 1815. The railway promoters sought to divert some of this traffic to their new line. Out of the twenty-six members of the provisional committee eight were resident in Richmond, and three were officers of the L.S.W.R (the London & Southampton Railway changed its name to the London & South-western Railway in 1839). Local traffic would

be welcome but was not seen as the main source of revenue:-

> In addition to the populous and much visited town of Richmond, this railway will command the traffic of Wandsworth, Putney, Barnes and Mortlake, through each of which it will pass. [7]

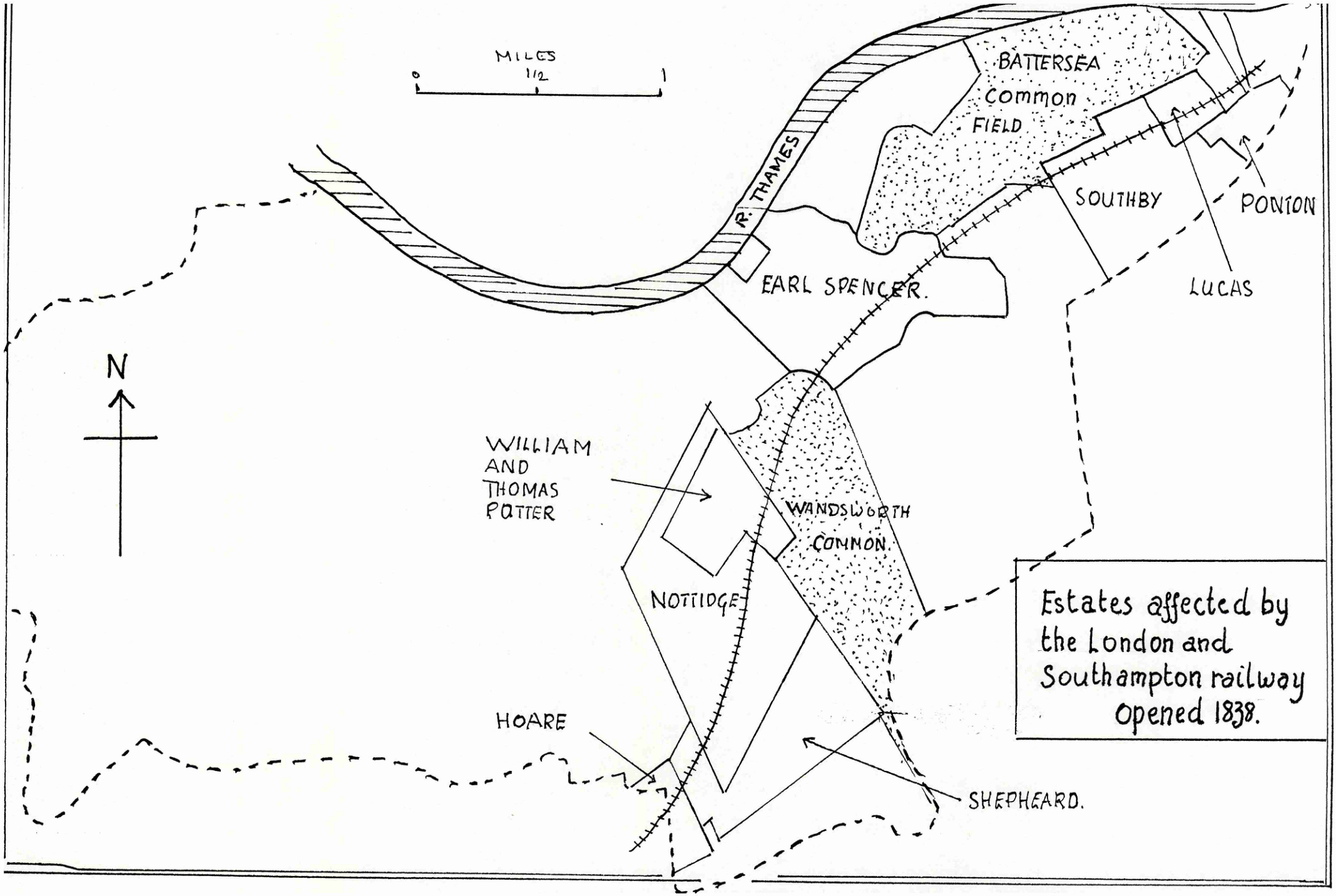
The London & Southampton was promoted primarily as a goods line, but the Richmond line expected to make its profits from passenger traffic, mostly day trippers. It was, therefore, realised that they must be able to join the train nearer to the centre of town than Nine Elms, and that suburban travellers would want to end their journeys closer to the centre of business:-

> No passenger gets into an omnibus at Wandsworth to run with us to Nine Elms, and then get into another omnibus to ride to London, in fact he rides the whole way by coach from Wandsworth to London. [8]

The routes of both the London & Southampton Railway and the Richmond Railway were determined to a considerable degree by the initial decision to site the Southampton line's terminus on river bank at Nine Elms. Most of the very early London main-line terminals were situated on what was the extreme edge of the built-up area at the time of construction: Nine Elms stood on the suburban frontier of Lambeth, and was actually nearer to Westminster and the City than its contemporaries, Paddington and Euston. From Nine Elms the Southampton line ran across the southern edge of Battersea Common Field, over the Falconbrook where that stream emerged from the high ground of south Battersea, and traversed Wandsworth Common in a deep cutting. The line crossed the Wandle by the Garratt Oil Mill, and passed out of the study area and into Wimbledon. [9]

The most direct route from the Wandle crossing to Nine Elms would have taken the line further to the east, but not only would such a course have involved more engineering works, it would also have led to the destruction of valuable houses on the west side of Clapham Common. In fact the whole route had been chosen to avoid the pulling down of houses wherever possible.[10] The Richmond Railway was planned as a branch of the London & Southampton, and left the main line at Falconbridge to run at the foot of the escarpment between St. John's Hill and York Road. The Wandle was crossed north of Wandsworth town centre and the line passed through Putney in a cutting. In Putney the choice lay between engineering works and the destruction of property in Putney High Street; the railway company preferred making a cutting to destroying houses. The chosen route was commended by the Railway Department of the Board of Trade for its economy in this respect.[11]

The books of reference and the statements of the railway promoters support the contention that both the London & Southampton and the Richmond Railways were planned to avoid the demolition of house property wherever possible, but it is less clear that the promoters of these schemes preferred to deal with large rather than small landowners in order to reduce legal costs, as suggested by J.R. Kellett.[12] The following table shows the acreage taken by railways between 1831 and 1851, the number of


MILES
0
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1
BATTERSEA
Common
FIELD
R. THAMES
SOUTHBY
PONTON
LUCAS
EARL SPENCER.
N
WILLIAM
AND
THOMAS
POTTER
WANDSWORTH
COMMON.
NOTTIDGE
HOARE
SHEPHEARD.
Estates affected by
the London and
Southampton railway
Opened 1838.

landowners concerned, and the mean size of their estates in each parish:-

Table 1. Railways and Landowners 1831 - 1851

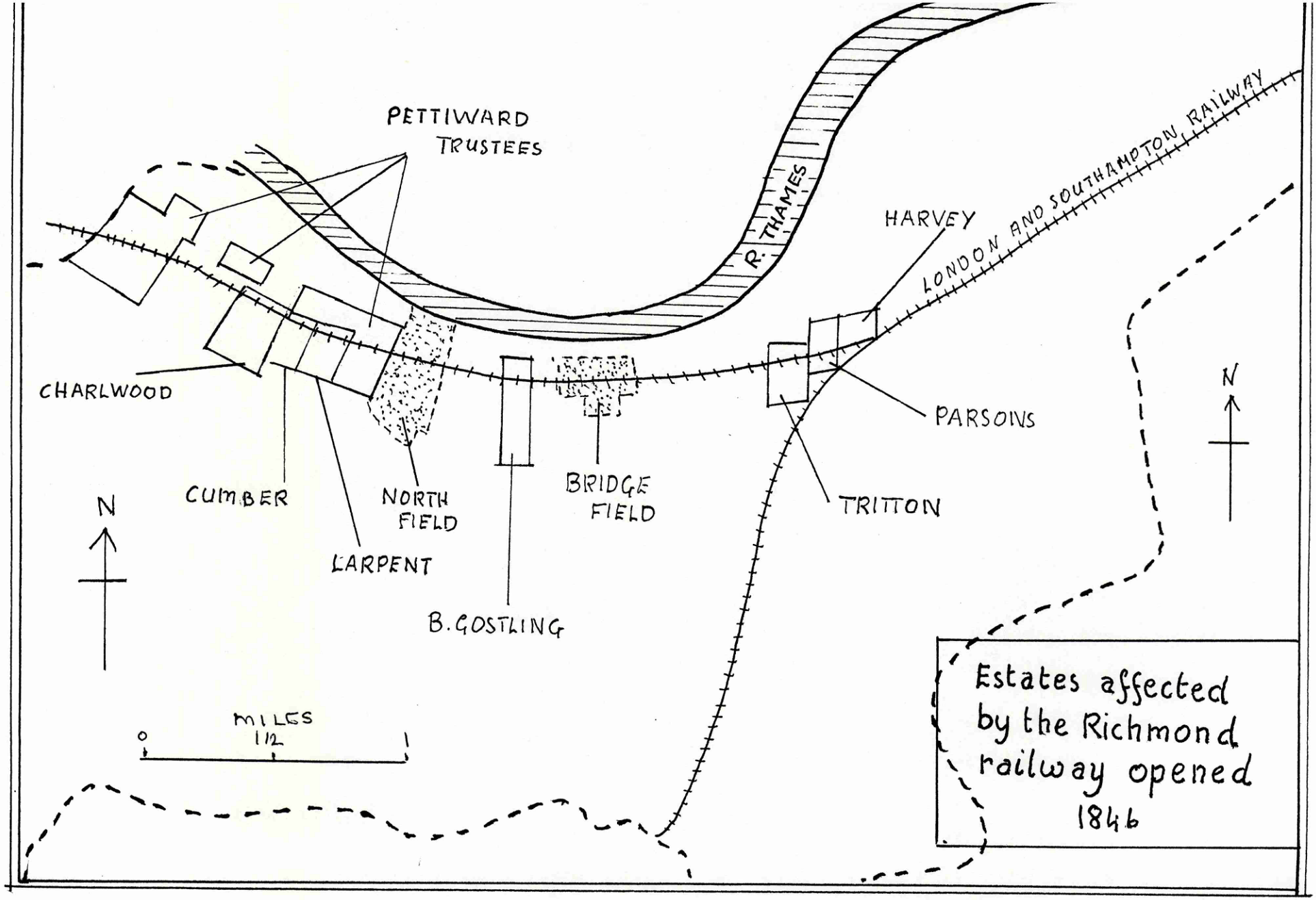
Railway	London & Southampton Rly.			Richmond Railway		
Parish	B'sea	W'sworth	Putney	B'sea	W'sworth	Putney
Length of line miles	2.60	1.26	-	0.59	0.99	1.34
Total acreage taken by railway	29	25	-	12	21	30
Number of landowners involved	12	10	-	7	34	7
Mean acreage of all estates crossed by railways	76	118	-	6	7	44
Mean acreage of all estates in parish	11	13	-	11	13	24

Sources:- Battersea and Wandsworth Tithe Awards 1838
Putney Tithe Award 1848
Deposited Plans and Books of Reference -
London & Southampton Railway - S.C.R.O. Maps 153 & 156
Richmond Railway - S.C.R.O. Maps 292.

The mean acreage of the estates crossed by the London & Southampton Railway was certainly greater by far than the mean size of all estates in Battersea and Wandsworth, which seems to support Kellett's contention. But the largest blocks of property, especially the lands of Earl Spencer, R.W. Southby, and Thos. Ponton in Battersea, were so situated that any railway aiming for a terminus at Nine Elms would be bound to cross one or all of them. In the case of the Richmond Railway, the properties traversed by the railway in Battersea and Wandsworth were smaller than the parish means, only in Putney were they larger. Here again topography rather than an attempt to avoid small estates determined the choice of route: in Wandsworth the line passed through the little, industrialised propertiees near the mouth of the Wandle, but in Putney the line crossed the medium sized holdings that lay between the small properties of Putney village and the large estates of Putney Heath and Roehampton.

Although dealing with small landowners might cause delay and extra legal costs, an owner of broad acreas, particularly if he was also politically influential, could delay the passing of the necessary Act of Parliament, and even force the railway company to make alterations to the chosen route. Fortunately, for the London & Southampton Company, the largest landowner in the study area, Earl Spencer, was not opposed to the coming of the railway, indeed he had settled with the railway company for the sale of the needed land only two months after the passing of the Act.[13] However, two other large landowners in Battersea, R.W. Southby and Thos. Ponton both petitioned against the London & Southampton;[14] Southby's petition was rejected but Ponton gained the concession that no more than four acres of his land would be taken without his permission.[15] Occupiers made objections on the grounds that either the railway would interfere with agricultural operations, or damage their amenities. A group of Battersea farmers told the House of Lords' committee that the embankments would hinder the movement of animals between the Common Field and the enclosed lands, but their claims were dismissed with a promise of compensation.[16] A number of owners and occupiers of houses on and around Wandsworth Common objected to the London & Southampton Railway because they believed that the cutting across Wandsworth Common would lower the water-table and so deprive them of their water supply. This objection was taken seriously and the Act obliged the railway company to invest £6,000 to secure the water supply of forty-nine houses in Battersea and Wandsworth.[17]

The Richmond Railway was a far less contentious scheme; by 1845 railways were better known and many landowners were engaged in the speculations of the Railway Mania. Nevertheless, J.T. Leader, the largest landowner in Putney, opposed the bill.[18] Landowners might object to a


PETTIWARD
TRUSTEES
R. THAMES
HARVEY
LONDON AND SOUTHAMPTON RAILWAY
CHARLWOOD
CUMBER
NORTH FIELD
BRIDGE FIELD
PARSONS
TRITTON
LARPENT
B. GOSTLING
N
N
MILES
0
1/2
1
Estates affected by the Richmond railway opened 1846

particular scheme, but even if they did not, they would still try to obtain the best possible price for their lands. In 1835 and 1836 Earl Spencer sold most of his agricultural land in Battersea and Wandsworth, (see below) and buyers were ready to pay between £90 and £110 per acre according to whether the land was in open field or enclosed.[19] In 1845 the Richmond Railway paid the Pettiward Trustees £2,750 for four acres, and Robt. East of Battersea £4,700 for 15 acres; prices in excess of £300 per acre in each case.[20] Prices could be much higher if the railway companies failed to reach agreement with landowners and the matter went to arbitration, as the following examples will show; one is taken from each railway, one concerned agricultural land, the other residential property. In the first case the London & Southampton offered T & W Potter £2,349 for seven acres of garden ground on the west side of Wandsworth Common; the Potters claimed £6,680, and the company finally paid £4,500, or over £600 per acre.[21] In the second example Sir George Larpent was paid £7,250 for his house and pleasure ground on the east side of Putney High Street, over £900 per acre.[22]

The consequences of the construction of these railways for the estates they crossed varied from line to line and from parish to parish. The London & Southampton, which was to become the main line of the L.S.W.R., had the greatest impact and the brunt of this fell on Battersea. The siting of the first terminus at Nine Elms, which was turned into a goods depot and locomotive works when the terminus was moved to Waterloo, meant that railway tracks, sidings, and all the paraphenalia of railway operation, covered much of the north-east corner of Battersea, almost absorbing the whole of the Ponton estate. Further west the embankment over Battersea Fields neatly bisected the Southby property with common field strips on one side and enclosed fields on the other. Wandsworth too

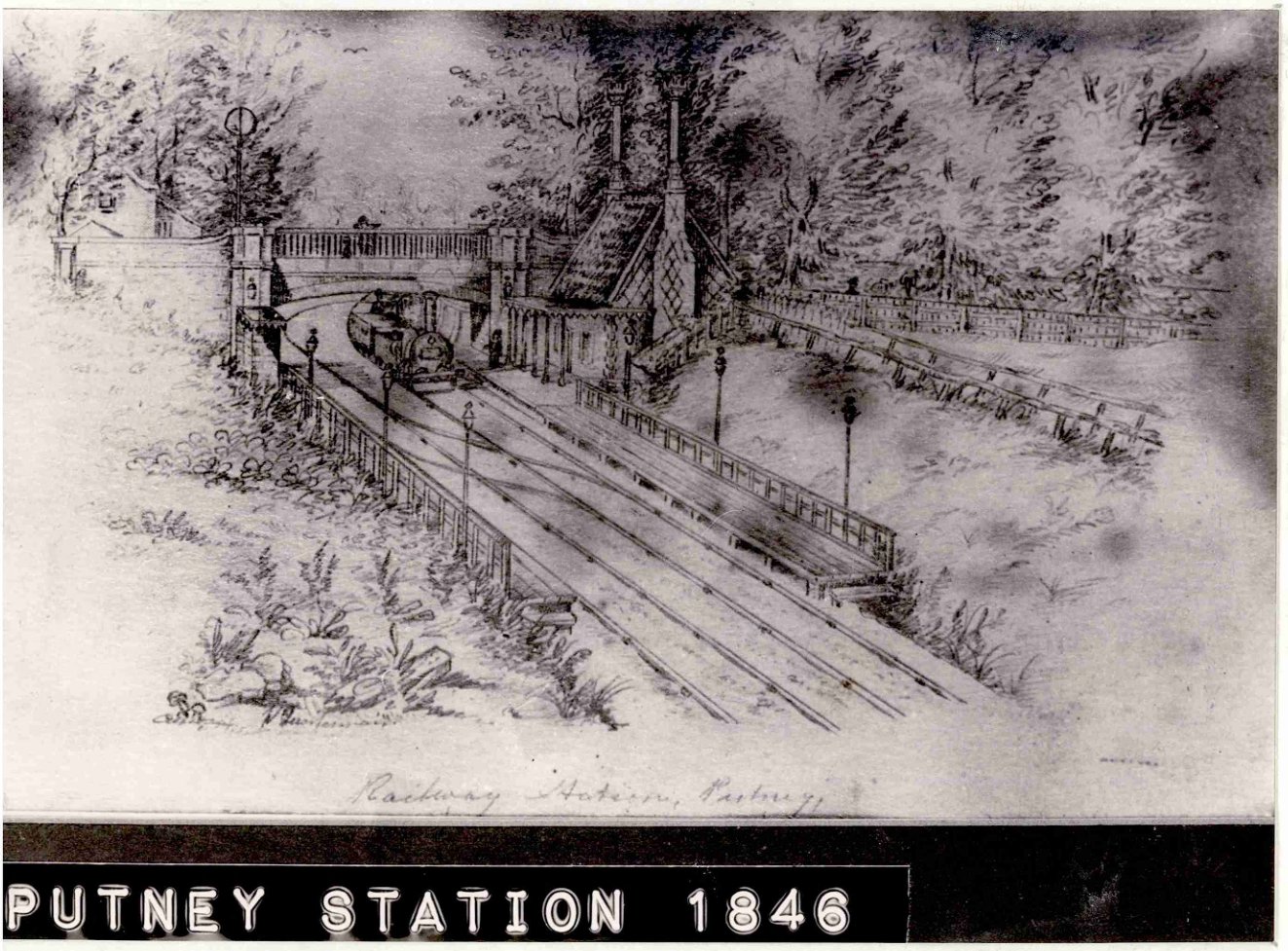
was crossed by the London & Southampton on an embankment, from Wandsworth Common to the Wandle crossing at Garratt, but with the result that, with the exception of the Potter's lands, properties became more compact rather than fragmented; Nottidge and Shepheard exchanged fields leaving Nottidge confined to the north-west of the railway line and Shepheard to the south-east. The Richmond Railway remained a branch line, although a busy one, and in Battersea and Wandsworth it ran through small estates already involved with industry. The line through Putney ran unobtrusively in a deep cutting and made little impact on the largest estates which were separated from the line by the Upper Richmond Road.

Although the interests of the owners of property were defended to some extent by the private bill procedure, little account was taken in those early days of the general good of the communities through which the proposed railway line would pass. On the outskirts of London the only bodies that could have fulfilled this function were the un-reformed open vestries; it is true that the vestries had the right to petition Parliament against a railway bill, but only in their capacity as property owners. The property that the vestries could defend was the parish roads, and in some cases, common rights. Battersea vestry petitioned against the London & Southampton bill but to no avail; [23] the Act authorising the line laid down that while turnpike roads must be crossed by a bridge, parish roads could be crossed on the level as long as crossing gates were provided.[24] Battersea vestry remained neutral over the Richmond Railway bill, and Wandsworth vestry expressed approval, but Putney passed a very strongly worded resolution against the project:-

> The said several proposals are not only inexpedient but totally unnecessary and that this parish having all reasonable and expeditious means afforded them, at trifling expense of going to and from London and Richmond, think that the projected undertaking will be neither productive of profit to the shareholders nor beneficial to the public.[25]

However, none of the vestries felt sufficiently strongly to submit petitions to Parliament, but one body was roused enough to petition against the Richmond Railway, this was the proprietors of Putney Bridge,[26] no doubt they saw the railway, particularly if it were to be extended further into London than Nine Elms, as a threat to the road traffic that crossed, and paid tolls, on Putney Bridge.

The construction of the lines discussed in this chapter had consequences for the future development of the study area that were not foreseen when the locality was still mainly farmland. The London and Southampton embankment over Battersea Fields created a barrier that remains today, indeed between Queenstown and Latchmere Roads, a distance of about a mile, there is still no north-south road connection. A similar situation exists in Wandsworth where the railway embankment cannot be crossed for about three-quarters of a mile between Garratt Lane and Heathfield Road. Perhaps the most serious charge against the London & Southampton is that the line began the mutilation of Wandsworth Common by cutting off the north-west corner, thus setting a precedent for later lines to cause much greater damage. The Richmond Railway was less harmful to the environment for the line through Battersea and Wandsworth ran across land already blighted by industry and in Putney the line was discreetly hidden in a cutting. But even in Putney north-south movement was inhibited by the railway line, particularly west of the High Street.



The first Putney Station in 1846.

The division of building estates and the disruption of road communications were the negative side of railway construction, the positive aspect was the opening of stations and the provision of services. When the London & Southampton Railway was opened, only one station, apart from the terminus at Nine Elms, was thought necessary in the study area; this was situated at the northern end of Wandsworth Common, on the road from Clapham to Wandsworth, but in the parish of Battersea. It was called "Wandsworth", although it was a mile from the centre of that town, and a mile and a half from Clapham. When the Richmond Railway was opened a station called "Putney" was provided in Putney High Street, about three quarters of a mile south of the bridge. There was another in North Street, Wandsworth, a little to the west of the present "Wandsworth Town" station. This station took the name "Wandsworth", and the former "Wandsworth" station on the main line became known as "Clapham Common". The names given to this station indicate the source of the traffic expected by the railway company; firstly, the businessmen and industrialists of Wandsworth and secondly, the occupiers of the villas on Clapham common.

The stations on the Richmond Line were more conveniently placed than "Wandsworth/Clapham Common" on the main line, and consequently, attracted the most traffic. In the last six months of 1839, 9,940 passengers used "Wandsworth" station on the main line,[27] but in the two months of June and July 1847, 9,486 passengers passed through "Wandsworth" station on the Richmond Line, and 8,550 made use of "Putney" station. But short-distance traffic was still very light; in the same two months 50,571 passengers travelled from Richmond to Nine Elms.[28] The termination of the railway at Nine Elms discouraged business on both lines but in 1848 the terminus was moved to Waterloo and a new station was opened at "Vauxhall", over the

border in Lambeth but conveniently placed for the Nine Elms district of Battersea. The table below shows the trains available from stations in the study area in 1840 and in 1850:-

Table 2. - Train Services - 1840 and 1850

	1840				1850			
Station	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Wandsworth/Clapham Common	8	7	2	2	9	8	2	2
Putney	-	-	-	-	15	15	2	3
Wandsworth	-	-	-	-	15	15	2	3
Vauxhall	-	-	-	-	15	15	2	3

(1) All weekday up trains
(2) All weekday down trains
(3) Weekday up trains before 10 am
(4) Weekday down trains after 5 pm.

Note - In 1840 trains ran to Nine Elms only, in 1850 they ran through to Waterloo.

Sources:- R.A. Williams - The London & South-western Railway (1968) vol.1 p.43. Bradshaw's Railway Guide - 1850.

Trains on the main line were few and far between, even after the opening of Waterloo, and there was no improvement in the early morning and evening trains which would be the ones used by business men travelling into town. Services on the Richmond branch were better, but the morning and evening trains were still totally inadequate for large scale commuting. Even if the trains had been more frequent, the level of fares charged were high enough to discourage the majority of workers from making use of the railway. In 1840 the single fare from "Wandsworth/Clapham Common" to "Nine Elms" was 1/6d. first class and 1/- second class;[29] a traveller to the City would also have to pay the steamer fare of 2d.[30] By 1850 fares had been reduced to 10d. first class and 7d. second class, and a third class fare of 5d. had been introduced.[31] Therefore, the minimum cost of travelling to "Waterloo" and back each day for six days a week would be 5/-, or between a quarter and a third of the weekly pay of a skilled man in regular employment.

Because of the infrequent service offered, the railways before 1851 were of only limited use to those who could afford the high fares; a more accessible way of getting to town was provided by the horse omnibus. George Shillibeer began to operate the first omnibus in London in July 1829, on the New Road from Paddington to the Bank.[32] Unlike the short-stage coaches, the omnibuses required no prior booking and they picked up and dropped passengers along the route, not just at the termini as did the short-stages. The scope of the omnibus was much augemented by the removal of the Hackney carriage monopoly, and from January 1832 they were able to ply for custom throughout the built-up area.[33] The omnibus is first recorded in the study area in 1835 when there were four journeys a day from the City to Battersea.[34] In 1833, 198 short-stage coaches left London for Battersea, Wandsworth, Putney and Clapham, but by 1847 the same destinations were served by 557 omnibuses.[35] Out of this total 204 omnibuses served Clapham and 240 Putney. By contrast Wandsworth had 96 omnibuses and Battersea only 27. This preference of bus operators for middle class suburbs was to persist throughout the century.

By 1851 it is possible to distinguish definite routes but the best services began just outside the study area.[36] From Clapham village, there was an omnibus to the City every ten minutes from 8.10 am to 9.30 pm, and an omnibus ran every ten minutes from 8 a.m. to 10 p.m. from Cheyne Walk, Chelsea, at the northern end of Battersea Bridge, to Charing Cross and the Bank. Similarly, omnibuses ran from the northern end of Putney Bridge, to the Bank every ten minutes between 7.45 a.m. to 10 p.m. But services were much less frequent from points actually inside the study area; Tolhurst's omnibus ran only once a day between Roehampton and the City by way of Putney Bridge, and travellers from Wandsworth could take advantage of the omnibuses which began in Kingston and which ran thirteen times a day from

Wandsworth to the Bank, but those inhabitants of the older parts of Battersea, around the church and the south end of Battersea Bridge, who were unwilling to walk across the bridge to Chelsea, had to make do with a rather infrequent service which ran from Wandsworth by way of Battersea Bridge and Charing Cross, to the Bank, three times a day from 8.45 a.m. to 7 p.m.

Although the omnibuses gave a more generally accessible service than did the railway, this was also a relatively expensive way of travelling. The single fare from Clapham to Gracechurch Street was 6d., and the same fare charged from Chelsea to the Bank. A traveller from the north side of Putney Bridge to the Bank would pay 9d., as would his fellow who went from Wandsworth to the Bank by way of the circuitous route through Battersea and Chelsea. The direct route from Wandsworth to the Bank cost 1/- as did the journey from Roehampton to the City.[37] This high level of fares which meant a weekly travel bill of between 6/- and 12/- was too high for the majority of City clerks and artisans to contemplate, given the wage levels of 1851. Even if the fares had been lower, the late starting times in the morning would have made it impossible for the lower ranks of City worker to travel to town by omnibus and still be at his desk at the usual starting time.

The least expensive way of travelling from Battersea, Wandsworth and Putney to Westminister and the City in the mid-nineteenth century was by way of the river Thames. In the early 1830s the river steamers were still used mainly for pleasure; excursionists were taken upstream on summer weekends to Richmond and Hampton Court. The change to a greater concentration on business travel came with the opening of the London and Southampton Railway to Nine Elms in 1838. In the same year the Iron

Steamboat Company founded in 1837 in co-operation with the railways, started a thirty-minute service from the terminus to London Bridge; by 1843 the company was operating a fifteen-minute service from London Bridge as far upstream as Chelsea.[38] The London and Westminster Steam Packet Company was already operating an upstream service, and in 1840 the fares from Westminster were 3d. single and 4d. return to Battersea Square, and 4d. single and 7d. return to Wandsworth and Putney.[39] The upstream traffic proved exceedingly profitable, and the Citizen Steamboat Company, registered in 1845, leased the piers at Vauxhall, Battersea Square and Chelsea, and began running steamboats between London Bridge, Chelsea and Kew.[40] The Citizen Company became the largest operator on the upper river, and second only to the Woolwich Steam Packet Company.[41]

By 1851 the two companies together provided a fifteen minute service from London Bridge to Chelsea in daylight hours. The service up river to Putney was less frequent, once an hour from 8.30 a.m. to 7.30 p.m. in summer, but only three boats a day in winter. Fares were reasonable, 3d. single from London Bridge to Chelsea and 5d. single all the way to Putney.[42] The steamers could be boarded at six piers in Battersea, one in Wandsworth, and one in Putney. Considering the infrequent omnibus service and the lack of a railway station, the steamers were the cheapest and the most convenient means available for travelling from the northern part of Battersea. The main disadvantage, from the point of view of someone using the steamers as a way of travelling to work in the City, was the late start in winter; for at least four months of the year, this would be too late for a clerk to reach his office by the opening of normal business hours. The boats were open decked and the passengers were exposed to the elements; in winter there were also the delays caused by the fogs for which nineteenth century London was notorious.

The modernisation of transport that began in the years from 1831 to 1851, not only provided limited opportunities for those wealthy enough to afford the fares to travel outside their immediate localities in search of work, but the new transport undertakings offered fresh employment opportunities on their systems. A lot of the work in public transport simply absorbed workers from older forms of travel made redundant by technical change. But the omnibuses and steamers did not just absorb redundant workers, the great growth in services which had taken place by 1851 created a demand for a whole new work force.

While the steamers and omnibuses had their predecessors, the railway was an entirely novel transport medium, and in the construction phase the railways gave work to two new labour forces, one temporary, the other permanent. The navvies who built the railways made no permanent impact on the locality, but the permanent staff, drivers, firemen, signalmen and stationmen, were the nucleus of a labour force that was to continue to grow throughout the nineteenth century. When the lines were first opened the permanent staff was very small indeed; when the service to Richmond began in 1846, only seventeen men were engaged to man all the stations from Wandsworth to Richmond; Wandsworth and Putney stations were each run by one station agent and one policeman (signalman).[43]

The greatest concentration of workers was at the terminus of the line, and in 1851 Waterloo and the depot at Nine Elms together employed 306 railwaymen.[44] This total included the staff of the locomotive works at Nine Elms. The locomotive works had its beginning with the engagement in 1841 of John Viret Gooch as the first locomotive superintendent of the London & South-western Railway. Up to this time the company had bought locomotives from outside suppliers, but Gooch established a locomotive

works close to the terminus at Nine Elms, and the works completed its first locomotive in 1843.[45] The company's records do not state why the directors chose to site the locomotive works at the London terminus rather than at a mid-point on the line, as the Great Western had done at Swindon; but the site had two main attractions from the point of view of the locomotive superintendent of the L.S.W.R. Firstly, Nine Elms was the best situated point on the line as it existed in 1841 to receive raw materials. coal and iron could be brought cheaply by canal and river from the Midlands and the north-east of England. Secondly, the London area possessed the only pool of skilled engineering labour available to the L.S.W.R. whose line ran through a mainly agricultural part of England. In particular, there was the engineering works of Henry Maudslay in Lambeth which employed 1,000 men in the 1840's, and which made marine engines, machinery for the mint, pumps and machine tools.[46] In the early days the number of workers at Nine Elms was quite small; there were only 37 men on the payroll in 1851.[47] But this was typical of industrial work in the London area at this time for in 1851 only seven London employers employed more than 350 men.[48]

Railway work was not the only form of industrial public service work in the study area, there were also gasworks and waterworks. The South London Gas Company had works both north and south of Vauxhall Bridge,[49] and a gas works was opened by the Wandsworth and Putney Gas Light and Coke Compnay in 1834 at the mouth of the Wandle.[50] The Southwark and Vauxhall Water Company opened a waterworks in Battersea Fields in 1842,[51] and by 1850 42 men were employed on the site.[52]

These new service industries came into the area at a time when some traditional manufactures, in particular calico printing in the Wandle

valley, were in decline. The movement of calico printing from London to the provinces has been attributed to technical improvements which were easier to introduce away from the regulated London work force.[53] By 1851 there were only 473 calico printers in the Home Counties,[54] and 100 of these worked for Anthony Heath of Garratt.[55] Fortunately for Wandsworth, new industries moved in to replace the old; in 1838 the Wandle Iron Mills, which were producing cannon and shot in 1808,[56] were replaced on the same site by Creswick's paper mill which made cards and Bristol board.[57] In the year that the paper mill was opened, Blundell and Spence began making candles in Garratt Lane,[58] and between 1832 and 1839 Richard Bell set up in business in the same part of Wandsworth as an instantaneous light (match) maker.[59] Candle making was also introduced into Battersea in this period; in 1830 Edward Price set up a coconut pressing works in the parish, and at about the same date he began making candles at Belmont Works, Vauxhall. Candle making was also begun on part of the York House site in Battersea in 1843, but in the 1840s and 1850s the Belmont works were the most important with 700 employees in 1849.[60] The land between York Road and the Thames continued to attract industry in this period; in 1848 Orlando Jones transferred his starch factory from Whitechapel to a site close to York House.[61]

At the same time as a variety of manufactures were moving into the York Road district of Battersea, the chemical industry was becoming dominant in the area between Battersea church and Battersea Bridge. Between 1832 and 1839, three new chemical manufacturers moved on to this stretch of the river as did white lead and colour makers, size makers, and producers of vitriol and aqua forte. Perhaps the most notable chemical concern was Greenwood and May of Garden Wharf which became May and Baker in 1842.[62] There was also a move away from the river front into Battersea

Fields at this time, Peter Pariss began making oil of vitriol near Battersea New Town between 1845 and 1852.[63]

The industrial area of Wandsworth and Battersea was still quite small, and it was isolated from the main industrial belt of London which stretched from Southwark and Bermondsey in the south, through Poplar, Stepney, Hackney and Clerkenwell to Islington in the north. Although heavy industry, like shipbuilding, was found on the riverside, the area was permeated with small workshops engaged in a variety of trades such as dressmaking and marine instrument making. In Battersea and Wandsworth industry was largely confined to Thameside and the Wandle Valley. The great East End staples of silk weaving and shipbuilding were absent from the study area, which escaped the depression caused by the collapse of these trades in the 1860s. Most industry was factory based with little domestic manufacture. Wandsworth and Battersea made only a small contribution to the industrial life of London in 1851. In that year Wandsworth Registration District accounted for 2.10% of the population of London over 20 years old, but only 1.16% of those engaged in manufacture. (See table 7).

The growth of industry and its expansion away from the Battersea river front into Battersea Fields was first assisted and then checked by changes in the pattern of landownership which took place between 1831 and 1851; the most significant of these changes were the sales of the Spencer lands in Battersea and Wandsworth, and the establishment of Battersea Park.

Although the Spencer family held land in Wandsworth and Battersea for less than a hundred years, they were still acquiring estates in the

area as late as 1814. But they were also prepared to sell parts of their land as well; in 1824 the second Earl Spencer sold Melrose Hall, on West Hill in Wandsworth, together with 160 acres of land in the northern part of Wimbledon Park, to the marquis of Stafford, (later to become the Duke of Sutherland).[64] Four years later Lord Stafford and Lord Spencer promoted a bill to enclose the common fields and commons of Battersea and Wandsworth, but this measure was defeated in the House of Commons.[65] In November 1834 Lord Spencer died, leaving the third Earl an estate severely encumbered by debt.[66] Faced with such a situation Lord Spencer readily agreed to the suggestion of the auditor of Surrey Estates, John Shaw Lefevre, that the old manorial lands of Battersea and Wandsworth should be sold.[67]

The lands offered for sale lay in strips in the three common fields of Wandsworth and in Battersea Common Field, in a substantial block of enclosed land to the south of Battersea Field, and in other isolated fields in both parishes. A total of 527 acres of land were put on the market in Battersea and 311 acres in Wandsworth. The property was mostly farming land and market gardens, but there were also 248 houses and cottages. Forty-four acres in Battersea were described in the sale catalogues as building land; these fields lay to the south of St. John's Hill where villas had already been built. and close to the factories of York Road.[68] The greater part of the land, 78%, was let on yearly tennancies, but 18% was let on long leases, and 4% for terms of up to three lives. Most of the properties lon long leases were suburban villas, and the leases expired at dates ranging from 1835 to 1917. The disposal of the Battersea and Wandsworth estate took place in six auctions from June 1835 to August 1836; all the time the pressure of debt urged Lord Spencer to get rid of as much land as possible, in February 1836 he

wrote to Shaw Lefevre:-

> We have two objects to accomplish ..... the other exceedingly difficult viz, to pay off £160,000 of my father's debt before the 16th of next November. [69]

At the end of the day Lord Spencer gained £150,000 from the Battersea - Wandsworth sales.[70]

Although the surviving copies of the sale catalogues name only some of the purchasers of the Spencer estate, the tithe surveys, made only two years after the completion of the sales, make it possible to identify the buyers with a high degree of certainty. The main consequence of this transfer of land for the future development of the area was a further fragmentation of the landowning pattern; in Battersea the Spencer lands were divided among thirtyfour owners, and in Wandsworth among thirty owners. In Battersea seventeen purchasers took 62% of the land, and in Wandsworth eleven purchasers took 83% of the land. Three types of buyer may be distinguished. First there were the local gentry who bought fields close to their villas, land formerly held on lease, or larger tracts probably for investment. Among such purchasers was Matthew Whiting, merchant of Lavender Sweep, Edward Pain attorney of Surrey Lane, both in Battersea, and the second Duke of Sutherland who bought strips in Wandsworth South Field. Secondly, there were the market gardeners and farmers who took the opportunity to acquire the freehold of land already held on lease, the most notable among this class of buyer was Thomas Carter, market gardener of Falcon Lane Battersea, who bought fifty-six acres comrpising strips in Battersea Field, and enclosures to the east of Falcon Lane. Thirdly, there were the builders and the most eminent of these was Thomas Cubitt. Cubitt, who was engaged in developing the Grosvenor estate in Pimlico, across the river from Battersea, purchased

the "Red House" tavern on the river bank and twenty-three acres of land close to the river. A builder of only local note was John Cornelius Park who took sixteen acres near Battersea Bridge; in 1850 Park increased his interest in Battersea by buying a further seventeen acres of former Spencer land which lay in one block between the Richmond railway line, Falcon Lane, and York Road.[71] At the end of the sales forty-one acres in Battersea and twenty five acres in Wandsworth remained unsold. The properties left on Lord Spencer's hands included the silk factory in York Road, strips in Wandsworth South Field, and twenty-five acres of market garden in Battersea held by Samuel Poupart on a lease which had nineteen years to run. The nephew of Thomas Cubitt had offered £3,970 for this property, but Cubitt did not follow up the bid; he may have considered that nineteen years was too long to wait before he could begin to build on the land.

Not all of Lord Spencer's land in Wandsworth was put up for sale in 1835-36, the land excluded was the northern half of Wimbledon Park. Lord Spencer did not occupy Wimbledon Park House, which was let to the Duke of Somerset, but did retain control over the park. In 1841 John Augustus Beaumont, a property developer, bought the Duke of Sutherland's estate in Wandsworth, including Melrose Hall and the land that the Duke had bought from Lord Spencer in 1835-36. Beaumont approached Lord Spencer with the intention of buying the whole of Wimbledon Park, but the deal fell through because Beaumont considered Lord Spencer's price of £100,000 as too high.[72] Negotiations were resumed in March 1845 although Lord Spencer expressed doubts about Beaumont's ability to pay £100,000:-

> I hear for instance that the house or houses he is building in the part he has already bought have been standing still for want of funds and that the people employed about them complain that they are not regularly paid.[73]

However, a deal was concluded in September 1845, whereby Beaumont contracted to buy the whole park, about 1,000 acres, for £80,000.[74] The average price of £80 per acre compares very unfavourably with the average £190 per acre achieved in the 1835-36 sales. But Wimbledon Park, although pleasantly situated on ground sloping to the North-east, and within half a mile of Wimbledon station on the main line to Waterloo, was still four miles from the urban frontier of 1845. The reason Lord Spencer gave for wanting to sell Wimbledon Park was a wish to buy land in Northamptonshire.[75] It was not uncommon for a landowner to attempt to consolidate his holdings around the family's main seat, in 1823 Lord Calthorpe had proposed to sell Edgbaston to buy agricultural land in Suffolk.[76] But the building potential of land on the edge of London in 1845 should have been more apparent than the prospect for similar land on the fringes of Birmingham in 1823, and it is surprising that Lord Spencer was ready for forego the profits that Beaumont clearly expected to make.

The final change in the structure of landownership in this period took place in Battersea Field, where the sale of Lord Spencer's lands in 1835-36 had further complicated an already complex pattern of property rights. The extreme fragmentation of ownership limited the possibilities of agricultural improvement but did not stop the spread of industry on to the Common Field, nor the more intensive use of the riverside for recreation. Battersea Field was the nearest stretch of open river bank to Lambeth and Westminster, and from 1838 it became easily accessible by steamer; in 1845, 137,623 visitors disembarked from one pier alone.[77] In 1843 Thomas Cubitt, who owned land in Battersea Field including the "Red House", proposed to the Metropolitan Improvement Commission that a royal park should be laid out on the site. The architect to the Office of Woods and Forests, James Pennethorne, was asked to prepare a plan. This plan

proposed a park of about 200 acres, peppered with villas, and surrounded by elegant terraces, similar to the estate developed in Regents Park by John Nash, Pennethorne's predecessor at the Office of Woods and Forests.[78] The commissioners accepted Pennethorne's plan and in 1846 an Act was passed authorising the making of a park in Battersea Fields; the park was to be paid for by the sale of crown lands up to £200,000 in value. The Act scheduled most of the land between the Lower Wandsworth Road and the river, and from the millpond at Nine Elms as far west as Battersea Bridge Road. Over 300 separate properties were listed and they included not only agricultural land and riverside taverns, but also two chemical works, a lead factory, and three unfinished houses in course of erection on land that the builder, J.C. Park, had bought from Lord Spencer in 1835.[79]

Parliament may have decreed the making of a park but the Treasury was unable, or unwilling, to provide the necessary funds; in 1848 a second Act of Parliament was passed which gave the Commissioners of Woods and Forests the power to give security to any landowner who was prepared to wait for his money;[80] by 1851 only 55 acres had been bought but £73,599 had been spent. Even if it is assumed that not much more than half of this sum actually reached the sellers of land, the rest being consumed by administrative costs, this works out at nearly £700 per acre more than Pennethorne's original estimate of £450 per acre, and no less than £620 per acre more than Lord Spencer received for Wimbledon Park. Even making allowance for the fact that Lord Spencer may have been prepared to take a lower price to dispose of the estate as a whole, and that compulsory purchase tended to force up the price of land, the difference suggests that whereas Wimbledon Park was still far from the urban frontier of the late 1840s, Battersea Fields were ripe for development.[81] A third Act of Parliament was passed in 1851 which repealed the first two Acts and

transferred the task of making the park to a new body to be called the Battersea Park Commissioners. These commissioners were in fact the newly created Commissioners of Works and Public Buildings, and they took over lands already purchased for the park which ceased to be the property of the Crown. The commissioners were given authority to sell land not actually required for the park, this effectively ended the possibility of a comprehensive development on the lines of Regent's Park.[82] The completion of the park will be discussed in the next chapter.

A landowner could decide to release land for housing, but the success of any development plan depended on the current demand for new homes, and the existance of a sufficient quantity of people willing and able to pay for new accomodation. Therefore, it is important to consider the growth of population, both in the study area itself and in the surrounding districts. The total population in 1831, 1841, and 1851, and the percentage increase in each decade are shown in the following tables.[83] Data are given for the three parishes of the study area, for the other three parishes in the Wandsworth Registration District, Clapham, Tooting, and Streatham, and for those parishes lying between Battersea and the City, Lambeth, and Newington. Figures are also given for four parishes which, like Battersea, stood on the edge of the built-up area in 1831; these are Camberwell to the south of London, Hampstead and Islington in the north, and Hammersmith on the west.

Table No.3	Total Population 1831 - 1851		
Parish	1831	1841	1851
Battersea	5311	6617	10560
Wandsworth	6879	7614	9611
Putney	3811	4684	5280
Total Study area	16001	18915	25451
Clapham	9958	12106	16290
Streatham	5068	5994)	9023
Tooting *	2063	2840)	
Total Reg. Dist.	33090	39855	50764
Lambeth	87856	115888	137325
Newington	44506	54006	64817
Camberwell	22831	39868	54667
Islington	37316	55690	95329
Hampstead	8588	10093	11986
Hammersmith	10222	13453	17760

Table No. 4.	Population Increase 1831 - 1851		
Parish	1831 - 1841	1841 - 1851	1831 - 1851
Battersea	24.59	59.59	93.83
Wandsworth	10.68	26.23	39.72
Putney	22.91	12.72	38.55
Total Study Area	18.21	34.55	59.06
Clapham	21.57	34.56	63.59
Streatham	18.27)	2.12	26.53
Tooting *	37.66)		
Total Reg. Dist.	20.44	27.37	53.41
Lambeth	31.91	15.61	56.31
Newington	21.29	20.02	45.37
Camberwell	41.22	37.12	93.64
Islington	49.24	71.18	155.46
Hampstead	17.52	28.76	39.57
Hammersmith	31.61	32.01	73.74

Note: * - Tooting/Streatham data distorted by the closure of a home for pauper children in Tooting.

Sources:- Published Census Reports
1831 - PP HC 1833 (149, 612) Vol.XXXVII p. 630
1841 - PP HC 1843 (496) Vol.XXII p.308
1851 - PP HC 1852-53 (1631) Vol.LXXXV Table 1 p. 308

Battersea, Wandsworth and Putney in 1831 had a lower population than most of the parishes shown in these tables, and the growth experienced between 1831 and 1841 was relatively modest; a mean of 18.21% for the study area as a whole, less than any parish with the exception of Hampstead. The lowest increase in the study area was experienced in Wandsworth and the highest in Battersea; but even in Battersea the increase of 24.59% was less than for any parish except Streatham, Clapham and, Hampstead, and Newington, which had already been absorbed into the continuously built-up area of London. Clearly even by 1841, the three parishes under review were not yet taking a major part in the suburban expansion of London. The picture changes in the next decade; between 1841 and 1851 Battersea's population rose by nearly 60%, a greater increase than in any other parish with the exception of Islington. The rate of increase rose modestly in Wandsworth, but actually fell in Putney, as it did in those southern parishes already joined to London by continuous housing, Lambeth, Newington, and Camberwell. In this decade Battersea, and to a lesser extent Wandsworth, began to participate in the general expansion of the London suburbs, but Putney remained essentially a parish of middle class villas, as it had been since the beginning of the century.

The growth in population is paralleled by a corresponding increase in the size of the housing stock, the total number of inhabited and uninhabited houses, and houses under construction, in each census year. The following table gives this data for the study area and for those other parishes considered in the previous population tables.

Table No.5 The Housing Stock 1831 - 1851

I - Inhabited Houses
B - Houses in process of building
U - Uninhabited Houses.

Parish	1831 I	1831 B	1831 U	1841 I	1841 B	1841 U	1851 I	1851 B	1851 U
Battersea	915	8	57	1090	20	44	1760	168	247
Wandsworth	1000	13	55	1315	17	68	1522	7	52
Putney	627	3	52	809	8	34	918	26	34
Total	2542	24	164	3214	45	146	4200	201	333
Clapham	1589	17	151	2006	25	78	2657	72	169
Streatham	741	40	53	900	19	30	1061	11	68
Tooting	325	12	9	339	---	17	358	3	30
Total R.D.	5197	93	377	6459	89	271	8276	287	600
Lambeth	13893	336	1353	17791	351	644	20447	212	1100
Newington	7885	104	865	9370	92	257	10458	168	589
Camberwell	5010	147	596	6843	119	282	9512	233	927
Islington	5797	316	717	8508	314	293	13528	549	659
Hampstead	1180	15	104	1411	6	72	1719	26	77
Hammersmith	1712	78	173	3214	59	95	3115	140	284

Source:- See Table No.4.

In Wandsworth and Putney more houses were added to the stock between 1831 and 1841 than between 1841 and 1851, but the total increase over the twenty-year period was very modest, less in fact than in any of the other parishes reviewed except Hampstead. Although only 162 houses were added to the Battersea total between 1831 and 1841, the pace of building increased sharply in the following decade when the total number of houses rose by 873, or by 77%. Parry-Lewis has shown that for the London area as a whole there was a boom in house construction in the 1840s, with a peak in 1845:[84] the District Surveyor's returns, (which survive for the years 1845 to 1852) suggest that this particular building cycle reached its highest point in Battersea and Wandsworth somewhat later than 1845.[85] In Battersea 837 houses were reported as under construction between 1845 and 1851; the decadal rise in the number of houses was 873. In Wandsworth 95 houses were noted as commenced between 1845 and 1851, out of a total for

the decade of 191. In each parish the highest number of housing starts were reported for 1851, with a considerable falling away in 1852. The full figures are given in the next table; unfortunately, Putney did not come under the Metropolitan Building Acts in this period:-

Table No.6: House Construction in Battersea and Wandsworth 1845 - 1852
Housing Rates According to the Metropolitan Building Act 1844
7 & 8 Victoria Cap. 84.

1st Rate	Area greater than 3,500 sq ft.	Four Stories high
2nd Rate	Area 2,100 to 3,500 sq. ft.	Three Stories high
3rd Rate	Area 1,400 to 2,100 sq. ft.	Two Stories and basement
4th Rate	Area not more than 1,400 sq. ft.	Two Stories, no basement

Houses notified to the District Surveyors as under construction.

	Battersea					Wandsworth					Total				
Year	1st	2nd	3rd	4th	Tot.	1st	2nd	3rd	4th	Tot.	1st	2nd	3rd	4th	Tot.
1845	-	-	9	46	55	-	-	1	10	11	-	-	10	56	66
1846	1	2	35	80	118	-	-	-	8	8	1	2	35	88	126
1847	-	-	6	69	75	2	-	-	4	6	2	-	6	73	81
1848	-	7	18	66	91	-	-	-	3	3	-	7	18	69	94
1849	-	1	7	123	131	-	-	-	5	5	-	1	7	128	136
1850	-	4	19	152	175	2	-	1	17	20	2	4	20	169	195
1851	-	2	9	181	192	1	17	24	-	42	1	19	33	181	234
1852	-	2	13	150	165	12	21	4	3	40	12	23	17	153	205
Total	1	18	116	867	1002	17	38	30	50	135	18	56	146	917	1137

Source:- District Surveyors Returns 1845 - 1852
G.L.C.R.O. MBO/DS/39-41-42 A - H

The District Surveyors' returns also make it possible to identify those parts of Battersea and Wandsworth where the new houses were built. In Battersea between 1845 and 1852 new building was concentrated in four main areas, around the southern end of Battersea Bridge, at Nine Elms and Battersea New Town, in York Road and on St. John's Hill. The first three areas were those parts of the parish where industry was expanding in this period; house building on St. John's Hill was mainly an extension of

villa building from the surroundings of Clapham and Wandsworth Commons. Most of the much smaller number of houses built in Wandsworth at this time went up in the old town centre except for the first villas on West Hill which were built in 1850 and 1851.

The building operations that took place at this time were on a small scale; for example in 1849 136 houses were begun in Battersea and Wandsworth by 46 different builders, no builder was responsible for more than 19 houses. The majority of houses built were of the smallest class covered by the Metropolitan Building Act of 1844,[86] the fourth rate, that is less than 1,400 square feet in area, and only two stories high. In Battersea, out of a total of 1002 houses begun between 1845 and 1852, 867 were of the fourth rate; the situation was similar in Wandsworth until the start of developments on West Hill. In 1851 and 1852 more first, second, and third rate houses than fourth rate houses were started.

The difference between the sizes of houses erected in Battersea compared with those built in Wandsworth suggests that by 1851 there were differences in social structure also. This view is supported by an analysis of the occupational data from the 1851 census; these data also demonstrate the wider differences between Putney and its eastern neighbours. The following tables show the occupational structure for Battersea, Putney and Wandsworth, derived from a ten percent sample of the enumerator's books, and arranged in accordance with the system proposed by W.A. Armstrong.[87] Similar data taken from the published census reports, are shown for Wandsworth registration district, Camberwell, Hampstead and London as a whole:-

Table No. 7 Occupation of Males and Females over 20 years - 1851

Total Numbers.

	Sample				Total Population			
Occupation	B'sea	W'th	P'ney	Total Sample	W'th	H'ead	C'ell	London
Agriculture	26	35	27	88	1868	313	965	21407
Mining	-	-	-	-	57	3	87	3631
Building	44	22	23	89	1685	315	1536	62974
Manufacturing	62	71	24	157	3447	558	3999	297584
Transport	22	22	7	51	830	163	831	61599
Warehouses	2	10	1	13	62	18	206	17310
Sea & Inland Nav.	7	8	3	18	190	2	184	21413
Railways	4	-	2	6	87	9	59	3432
Roads	9	4	1	14	492	134	382	19444
Dealing	39	30	13	82	1711	380	2296	107657
Industrial Service	48	27	13	88	1340	367	1633	61466
Clerks	3	1	-	4	140	38	762	12310
Labourers	43	23	13	79	1081	272	672	44178
Others	2	3	-	5	119	57	235	4978
Public & Professional	20	21	13	54	1718	610	2067	91065
Domestic Service	94	84	82	260	5923	1873	5258	193864
Total Occupied	355	312	202	869	18579	4582	18672	901257
Property Owners	14	19	14	47	1164	332	1816	41531
Dependent & Indefinite	202	144	96	442	9493	2196	11211	452175
Total Residue	216	163	110	489	10657	2528	13027	493706
Entire Population	571	475	312	1358	29236	7110	31699	1394963

Sources:- PP HC 1852-53 (1691.1) Vol. LXXXVIII. 1. Table XXVIII

Census Enumerators' Books, Battersea, Wandsworth, Putney. 1851 on microfilm - Battersea Local History Library.

Table No.8 Occupations of Males & Females over 20 years. 1851

Percentages

	Sample				Total Population			
Occupation	B'sea	W'th	P'ney	Total Sample	W'th	H'ead	C'ell	London
Agriculture	7.3	11.2	13.3	10.1	10.1	6.8	5.2	2.4
Mining	-	-	-	-	0.3	-	0.5	0.4
Building	12.4	7.0	11.3	10.2	9.1	6.9	8.2	7.0
Manufacturing	17.5	22.8	11.9	18.1	18.6	12.2	21.4	33.0
Transport	6.2	7.1	3.5	5.9	4.5	3.6	4.5	6.8
Warehouses	0.6	3.2	0.5	1.5	0.3	0.4	1.1	1.9
Sea & Inland Nav.	2.0	2.6	1.5	2.1	1.0	-	1.0	2.4
Railways	1.1	-	1.0	0.7	0.5	0.2	0.3	0.4
Roads	2.5	1.3	0.5	1.6	2.7	2.9	2.1	2.1
Dealing	11.0	9.6	6.4	9.4	9.2	8.3	12.3	11.9
Industrial Service	13.5	8.7	6.4	10.1	7.2	8.0	8.7	6.8
Clerks	0.8	0.3	-	0.5	0.8	0.8	3.9	1.4
Labourers	12.1	7.4	6.4	9.1	5.8	5.9	3.6	4.9
Others	0.6	1.0	-	0.6	0.6	1.2	1.2	0.5
Public Service etc.	5.6	6.7	6.4	6.2	9.2	13.2	11.1	10.1
Domestic Service	26.5	26.9	40.6	29.9	31.9	40.9	28.2	21.5
Total Occupied	100.0	100.0	99.8	99.9	100.1	100.0	100.1	99.9
	62.2	65.7	64.7	64.0	63.5	64.4	58.9	64.6
Property Owners	2.5	4.0	4.5	3.5	4.0	4.7	5.7	3.0
Dependent & Indefinite	35.3	30.3	30.8	32.5	32.4	30.9	35.4	32.4
Total Residue	37.8	34.3	35.3	36.0	36.4	35.6	41.1	35.4
Entire Population	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0

Sources:- PP.HC 1852-53 (1691.1) Vol. LXXXVIII 1. Table XXVIII
Census Enumerators' Books, Battersea, Wandsworth, Putney. 1851
on microfilm - Battersea Local History Library.

Wandsworth was still the most industrialised parish with nearly 23% of both sexes over twenty years old engaged in manufacture, a higher percentage of the population than in either Camberwell or Hampstead, but less than in London as a whole. These workers were probably employed in the old established manufactures of the Wandle Valley. Although industry expanded

in Battersea between 1831 and 1851, 5% less of the population were recorded as working in manufacture than was the case in Wandsworth; but the percentage of labourers, over 12%, was greater than in any other parish on the table or indeed in London as a whole. It seems possible that the new industries of Battersea, and over the border in Lambeth, utilised more unskilled labour than the older processes of the Wandle Valley. Work in the building trades also accounted for a higher percentage of the adult population of Battersea than for any other parish on the tables, or the whole of London; building workers may have been drawn into Battersea by the housing boom of the late 1840s but the parish became an important home for members of the industry throughout the rest of the century.

Discussion of industrial and similar work should not lead to the conclusion that any of the three parishes had the employment pattern of a typical industrial town in 1851; in all three parishes agriculture gave work to a higher percentage of the population than it did in Camberwell or Hampstead, or indeed in London generally, and more workers were employed in domestic service than in building, manufacture, or labouring; over a quarter of the adult population in each case. The number of domestic servants may also be used as an indication of the size of the middle class of each parish; Battersea and Wandsworth were similar in this respect, the numbers of servants suggest a greater middle-class element than in London as a whole, but less middle-class residents than were present in either Hampstead or Camberwell. In Putney over 40% of the occupied population worked as servants, a percentage only exceeded by Hampstead. F.M.L. Thompson equates the social status of Putney with that of Hampstead in the late eighteenth century,[88] and the occupational data from the census show that Putney retained this position in 1851.

The information provided by the 1851 census on population growth, housing and employment, form a summary of the state of the study area at the end of the first stage of the modernisation of its transport links with London. The degree of development that had taken place by 1851 was modest when compared with the growth of other localities at similar distances from the centre of London. There were no large housing schemes to compare with Edgbaston or the Eton College estate in Hampstead until work began on West Hill and in Wimbledon Park at the very end of the period; the fragmentation of the property pattern which increased in these twenty years, would have made such planning difficult. The expansion of industry in north Battersea and Wandsworth made those localities unattractive to the middle class, and the homes that were built in these parts of the study area were of the smallest type, erected in small numbers to cater for the needs of industrial workers.

The role played by transport in the development process before 1851 was a subordinate one. The fragmentation of estates due to railway construction was less than that brought about by the sales of the 1830s, and the interference with local road communications by the railway tracks was of minor importance while the greater part of the area remained agricultural land; but the laying of the tracks on embankments rather than on viaducts laid up trouble for the future. Similarly, the damage done to Wandsworth Common by the London & Southampton Railway was less than that caused by later schemes. The most serious harm to the environment was caused by the siting of terminal facilities at Nine Elms, and the utilisation of the site for engine sheds and locomotive works after the terminus had been moved to Waterloo. The improved means of travel provided by the railways were of only limited value to the community as a whole; the restricted service and the high fares meant that only the middle class

could use the railways on a regular basis. The same was true of the horse omnibus services whose routes reached a greater part of the locality, but whose fares were too high for working men. Neither the railways nor the omnibuses attempted to offer facilities in advance of demand, both tailored their operations to meet the needs of an existing population rather than a potential one. Only the Thames steamers supplied a form of travel cheap enough for mass use, but one which was much reduced in value by its seasonal nature.

The new work provided by the railways was of less importance than the employment opportunities created by other forms of industry, but the establishment of goods yards and locomotive works at Nine Elms laid the foundation for expansion later in the nineteenth century. All that had been achieved before 1851 was on a small scale when compared with that which came later; in the following twenty years the railway network was expanded greatly, and this expansion coincided with the great house building boom of the 1860s.

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CHAPTER 4

The Extension of the Railway System 1851 - 1871

Although the construction of railways in the study area began in 1834, the period of most intense activity was between 1851 and 1871. There were important differences between railway building before and after 1851; not only were more lines opened in the latter period, (two lines were authorised and built before 1851, but six lines were opened between 1851 and 1871), but more railway companies were involved. The two lines opened before 1851 eventually came under the control of the London and South-western Railway, but the lines constructed after 1851 were owned respectively by two companies new to the area, the London, Brighton and South Coast Railway, (L.B.S.C.R.) and the London Chatham and Dover Railway (L.C.D.R.); there was also a line opened jointly by the L.S.W.R., the L.B.S.C.R., the Great Western Railway, (G.W.R.) and the London and North-Western Railway, (L.N.W.R.). Not only was railway speculation and construction more hectic after 1851 than before, it was also more concentrated; the London & Southampton Railway and the Richmond Railways between them laid tracks in Battersea, Wandsworth and Putney, but the work done from 1851 to 1871 was restricted to Battersea.

The pace of railway development quickened after 1851, and so did the growth of population. Between 1831 and 1851 the population of the study area rose by 60%, but between 1851 and 1871 the rate of increase was 222% in the area as a whole, but no less than 411% in the parish of Battersea. In the same period the size of the housing stock was increased by 217% in

the three parishes taken together, but by 367% in Battersea. Most of these new houses were built between 1865 and 1871; a total of 7734 housing starts were notified to the district surveyors from 1858 to 1871, but 5020 houses were begun between 1865 and 1871. Thus Battersea, Wandsworth and Putney shared in the first housing boom of the second half of the century which, in London, reached its peak in 1868. The fact that house construction in London attained a peak when a period of intense railway building was coming to a close, suggests that better communications resulted in suburban expansion, indeed contemporaries thought so; in 1871 the registrar for Wandsworth commented that:-

> The increase of population in the parish of Battersea, excluding Penge hamlet, is attributed to the lowness of rents and to the facilities for communication by railway, road and river.[1]

But it is also possible that suburban development stimulated railway construction by providing new traffic, and it is just conceivable that the two events may be unrelated, and that railway building may have even rendered some localities unattractive to housing developers by covering the land with tracks and viaducts. It is the purpose of this chapter to examine the course of railway building from 1851 to 1871, and the quantity, quality, and location of houses erected in the same period, in an attempt to establish a relationship, if any, between the two construction booms.

The following table summarises the authorisation and opening dates of the railways built in Battersea, Wandsworth and Putney from 1851 to 1871.

Table 1 - Railway Development - 1851 to 1871

Railway	Controlling Company	Authorisation Date	Opening Date
West End of London & Crystal Palace Rly. W.E.C.P.R.	L.B.S.C.R.	4.8.1853	1.12.1856 to Wandsworth cmn 27.3.1858 Pimlico 1.10.1860 Victoria
West London Extension Rly. W.L.E.R.	L.N.W.R. G.W.R., L.S.W.R. L.B.S.C.R.	13.8.1859	2.3.1863
L.C.D.R.Metropolitan Extensions	L.C.D.R.	6.8.1860	25.8.1862
South London	L.C.D.R. L.B.S.C.R.	22.7.1863	1.6.1867
L.C.D.R. New Lines	L.C.D.R.	14.7.1864	21.1.1867
L.B.S.C.R. New Lines	L.B.S.C.R.	25.7.1864	1.12.1867

Source - R.H. Clark - A Southern Region Record (1964).

The first railway authorised after 1851, the West End of London & Crystal Palace Railway, (W.E.C.P.R.), received its Act of Parliament in August 1853[2] and was opened to Wandsworth Common in December 1856. The line was extended to a temporary terminus on the south bank of the Thames, close to the new Chelsea Bridge, in March 1858,[3] and to the present terminus at Victoria in October 1860.[4] The second railway to enter the area after 1851 was the West London Extension Railway, promoted jointly by the L.B.S.C.R., L.S.W.R., and L.N.W.R., and the G.W.R., and authorised in August 1859, to extend the moribund West London Railway across the river from Chelsea to Battersea, thus providing a connection between the L.N.W.R., at Willesden and the G.W.R. at Wormwood Scrubs, and the L.S.W.R., and the L.B.S.C.R., at Falconbridge.[5] The line was completed in March 1863.[6] The West London Extension Railway enabled the L.N.W.R. and the G.W.R. to operate trains into "Victoria", but before that line was finished another company began to make use of the new West End terminus ;

this was the London, Chatham and Dover Railway, (L.C.D.R.) which in August 1860 obtained its Metropolitan Extension Act which gave the company power to build two new lines, one to a City terminus at Farringdon Street, the other by way of Herne Hill to a junction with the W.E.C.P.R. at Stewarts Lane, Battersea.[7] The first trains reached Victoria by way of Herne Hill in August 1862.[8]

Even before 'Victoria' was opened there were plans to connect the new terminus with the original L.B.S.C.R. terminus at 'London Bridge' and these plans came to life as a co-operative venture of the L.B.S.C.R. and L.C.D.R. In June 1862 the L.B.S.C.R. was authorised to construct a line from their main line at the Surrey Canal to a junction with the L.C.D.R. at 'Brixton'[9] and a year later the L.C.D.R. took powers to extend the South London line, as this inter-station route became known, on a high level from 'Wandsworth Road' to 'Victoria'.[10] This line, together with a short spur to connect the L.C.D.R. with the W.L.E.R., was opened on the 21st January 1867.[11]

The L.C.D.R. high level line from 'Wandsworth Road' to 'Victoria' had two distinct advantages for the company; first it gave them completely independent access to 'Victoria', in fact a second terminus was built alongside the original station for the use of Chatham line trains. Second it eliminated the steep gradient from the low level W.E.C.P.R. route to the bridge over the Thames. This gradient was equally troublesome to the L.B.S.C.R. trains which followed the W.E.C.P.R. route, and in July 1864 the Brighton company took powers to build a high level line to 'Victoria'[12] which was opened on the 1st December 1867.[13]

This rather confusing catalogue of Acts of Parliament and opening dates does no justice to the complex motives that lay behind the promotion of each of these schemes. These motives operated on three levels; the traffic and profit expected from each new railway line, rivalry between the railway companies, and the activities of the great railway contractors.

The W.E.C.P.R., like the Richmond Railway, was primarily a holiday line, designed to carry passengers to the Crystal Palace which was to be re-erected at Sydenham.[14] The W.L.E.R. was promoted to enable the northern railway companies to bring coal to the southern suburbs, but Charles Stewart, Chairman of the L.N.W.R. also claimed that passengers would use the circuituous route from 'Victoria' to 'Euston' because of congestion on the streets.[15] The principal object of the L.C.D.R. Metropolitan Extensions was to give that company access to both the City and the West End over its own metals, but Joseph Cubitt, engineer of the L.C.D.R., described both the City and West End lines as "omnibus lines".[16]

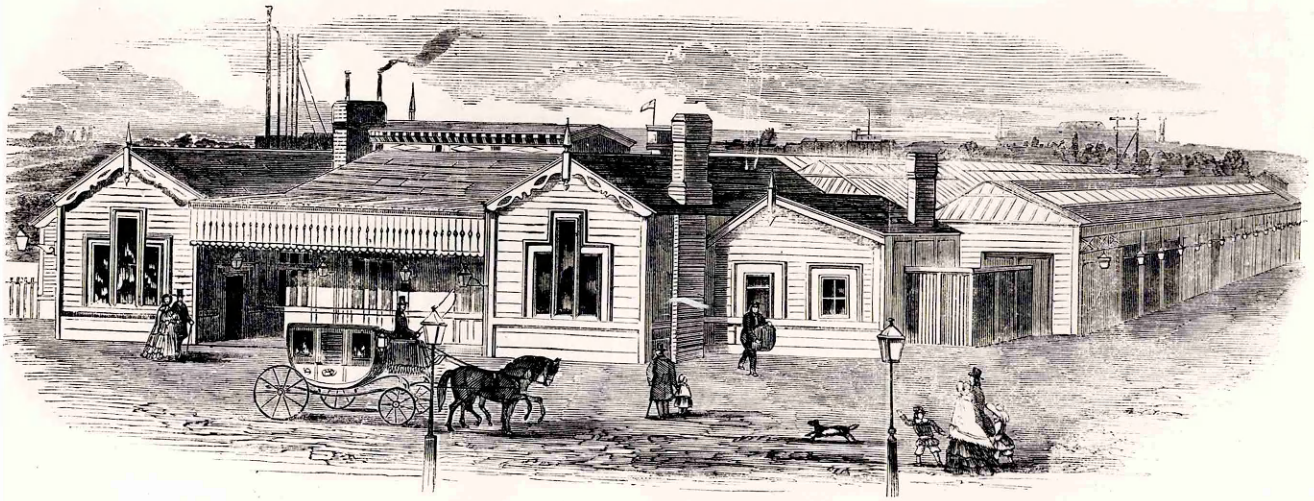
But of all the railways built in Battersea between 1851 and 1871, the only truly suburban line was the South London Railway. The route from London Bridge through Peckham and Brixton to Battersea corresponded roughly with the extent of the built-up area of South London in the 1860s and the South London line was described by Dyos as, "an overture to the suburbians themselves."[17] Both the West London Extension Railway and the South London were examples of co-operation between railway companies in a period when bitter rivalry was more common.

Behind the claims made about traffic by the railway promoters, and beyond the rivalries of the railway companies, stood the railway

contractors whose need to find work to keep their large enterprises in being caused them to enter the business of railway promotion themselves. The leading contractor at work in the study area at this time was Samuel Morton Peto. Peto and his partner Edward Betts, first contracted for railway work in 1846,[18] and in 1853 Betts subscribed £60,000 out of the W.E.C.P.R.'s total capital of £233,750.[19] The L.C.D.R. was the creature of the railway contractors from the beginning; Peto and Betts were the contractors for the Metropolitan Extensions, and in January 1863 they agreed to complete the line for a further £5,044.0.6d., to be paid in L.C.D.R. shares.[20] In 1863 and 1864 there was a second railway mania, concerned chiefly with the construction of urban railways; in 1864 alone 53 railway bills were laid before Parliament, seven of them involved the study area.[21] But the boom relied on the willingness of the contractors to take payment in shares, and on their ability to obtain credit from the banks. The bubble burst with the collapse of Overend and Gurney on the 10th May 1866.[22] Peto and Betts, who depended on this bank for finance, became bankrupt,[23] and the L.C.D.R. was forced to call in the receiver. The banking crisis meant that few new railway schemes were floated after 1866, and the completion of lines already begun was delayed.

There was yet one more reason for the construction of railway lines, this was to rectify past mistakes; the L.B.S.C.R. high level route of 1864 was designed to remove the objectionable gradient and curves of the original W.E.C.P.R.[24] The necessity for these rectifications will be explained by an examination of the chosen course of each railway line.

The railway engineers of the 1850's and 1860's were less free in the choice of routes than were the pioneers of the 1830's for they had to fit the new lines into an already existing network; every railway considered



WEST-END AND CRYSTAL PALACE RAILWAY STATION.

Pimlico station in 1858.

in this chapter was planned to make connections with lines actually in operation. It was intended that the first of these lines, the West End & Crystal Palace Railway, should join the L.S.W.R. and run into Waterloo, but the promoters rejected the most direct approach from the Crystal Palace to the L.S.W.R. at Vauxhall as this would have involved the demolition of valuable property in Clapham. Instead they selected a circuitous route through Balham which enabled the company to build the line across the cheaply acquired land of Tooting and Wandsworth Commons. The W.E.C.P.R. approached the L.S.W.R. at Falconbridge where there was already a junction between the L.S.W.R. main line and the Richmond line. As it happened no connection was made between the W.E.C.P.R. and the L.S.W.R., and the Battersea branch, now the main line, ran parallel to the South-western on its southern side to burrow under the older embankment near Longhedge Farm, and to continue at ground level to the terminus site on the river bank.[25] Doubts were raised about the suitability of this location from the beginning; counsel for the opponents to the W.E.C.P.R. bill before the Lords' committee asked Charles Geach, a director of the railway:-

> Is it your suggestion that the Quality of Belgravia will drive to the station at Battersea Fields and then go upon the line.... instead of going straight in three-quarters of an hour in their carriages?[26]

The choice of route for the West London Extension Railway was determined at the northern end by the existing line of the West London Railway, and in the south by the need to make as many connections as possible with the South-western and Brighton lines. After crossing the river the line passed to the south of the old village centre of Battersea on an embankment to the Lower Road, which about this time was becoming

known as Battersea Park Road. At this point the W.L.E.R. divided into four branches, to join both the L.S.W.R. and the W.E.C.P.R. in both 'down' and 'up' directions. Although the route missed the most densely built-up part of Battersea, a total of 91 houses were either demolished or depreciated in value by the railway.[27]

It was of paramount importance to the promoters of the L.C.D.R. Metropolitan Extensions to select the most direct line possible for the whole point of the scheme was to offer a quicker service to Dover than that already operated by the South-eastern. The course of the western extension in Battersea was quite short; from Wandsworth Road on a descending gradient to join the W.E.C.P.R. at Longhedge Farm. On the whole line from Herne Hill to Longhedge 89 houses were either destroyed or reduced in value, but only 26 of them were on the Battersea section.[28]

The extension of the W.E.C.P.R. line over the river to 'Victoria' posed formidable operating problems on both sides of the river because of the very steep gradients involved. On the south side of the river the solution was to build viaducts over the L.S.W.R. to replace the original burrowing route of the W.E.C.P.R. The L.C.D.R. was the first to take this way out of the dilemma by building a line on a viaduct parallel to their original route, into a new section of 'Victoria' station especially built for their use and for that of the G.W.R. This high level line affected only 23 houses.

The L.B.S.C.R. Battersea Lines bill of 1864 was designed to serve the same purpose as the L.C.D.R. proposals of a year earlier; the viaduct was to leave the W.E.C.P.R. at Poupart's farm and to pass over in turn, the W.L.E.R., the old line of the W.E.C.P.R., the L.S.W.R., and the

Battersea Park Road, before running to the bridge over the Thames. A branch was to run on a viaduct from Battersea Park Road to the L.C.D.R. at 'Wandsworth Road', for the use of the Brighton company's trains on the South London line. The W.E.C.P.R. line of 1853, like its predecessors the London and Southampton and the Richmond lines, had been routed to avoid the demolition of houses wherever possible, but the routes chosen for the later railways were selected almost entirely to suit the wider schemes of the railway companies, scant regard was paid to local interests in general or to the destruction of property in particular. The railway companies could afford to take this high-handed attitude because of a change in the relative power of landowners and railway companies that had taken place since the 1830s.

In the 1830s the railways were new and landowners still politically powerful; by the 1850s investment in railways was widespread and the companies had built up a formidable interest in Parliament. In the study area the balance of power was further tipped towards the railways by the fragmentation of estates that had continued since the sale of Lord Spencer's lands in Battersea and Wandsworth in 1835. Table No.2 shows the acreage of land taken by each project and the numbers of landowners involved.

Table No.2 - Railways and Landowners 1851 - 1871.

1. West End of London & Crystal Palace Railway 1853.
2. West London Extension Railway 1859
3. London Chatham & Dover Railway - Metropolitan Extensions 1860.
4. L.C.D.R. New Lines - South London Line 1863.
5. L.C.D.R. New Lines - 1864
6. L.B.S.C.R. Battersea New Lines 1864.

Table No.2 (Contd.)

	Railways					
	1	2	3	4	5	6
Length of lines - miles	3.5	1.7	1.1	0.6	0.5	1.0
Total acreage taken	74	36	23	13	11	21
Number of landowners	24	47	20	28	11	9
Number of houses	13	91	26	21	2	90 +
Replies of landowners						
Assents		9		5	1	1
Dissents		27		4	1	7
Neuter or no answer		11		19	9	1

+ Carcases in course of erection.

Sources - Deposited plans and books of reference.

The replies of landowners survive for only four of the schemes under review in this chapter; in the case of the West London Extension Railway there were nine owners of property in favour of the bill but twenty-seven opposed. In general the smaller landowners approved of the proposals, especially if their land was not directly involved, but the larger proprietors, including Thomas Carter, A.D. McKellar, and the executors of the Southby estate, expressed disapproval. In the case of the L.C.D.R. schemes of 1863 and 1864, six landowners assented, five dissented, but no less than twenty-eight were neuter or made no reply, this seems like resignation in the face of a power that seemed invincible.[29]

Those landowners that took the trouble to give evidence before the Parliamentary committees objected mainly on the grounds of amenity; in general they were the inhabitants of older properties, not the owners or occupiers of houses built in the previous twenty years. one such objector was James Noble who lived in an old mansion on the banks of the Thames which lay in the path of the W.L.E.R.[30] Other landowners, whose lands were not actually crossed by the proposed new railways, gave their

approval to the bills; Edward Pain who had bought land in Battersea in the Spencer sales of 1835, gave evidence in favour of the W.E.C.P.R. and claimed to the Lords committee that land values would rise much faster if the railway was built.[31]

The largest owner of land in Battersea in 1853 was not a private individual or even a company, but the state in the form of the Battersea Park Commissioners who held over 300 acres, only 200 of which were needed for the park. By this time Cubitt's plan to pay for the park by building and letting villas had been abandoned, and in January 1853 the Commissioners offered for sale the stocks of bricks already assembled for house building.[32] The commissioners were also anxious to sell off land not actually required for the park, and in 1852 they proposed to the promoters of the W.E.C.P.R. that the railway company should buy all this land and use that not needed for the railway for housing. The directors of the W.E.C.P.R. rejected this idea, realising that Parliament would be unlikely to sanction such a proposition, but they were able to claim to the Lord's committee in 1853 that they had an agreement with the Commissioners whereby the railway would buy nine acres for £1,500.[33] This agreement was never put into effect, and although the park and the new Chelsea Bridge were opened in March 1858,[34] it was not until April 1865 that the Brighton company reached an agreement with the Park Commissioners to buy only so much land as was actually needed to construct the high level line.[35] The long delay in selling land no doubt contributed to the fact that the ground on the eastern side of Battersea Park was not used for housing, but the industrialisation of the waterfront from the Park to Nine Elms ensured that had any houses been built they would have been of very different value from the villas of Regent's Park.

Apart from the land of the Battersea Park Commissioners the largest estate in Battersea in 1853 was the 179 acres of Longhedge Farm held at this time by the executors of R.W. Southby who had been the proprietor in 1834, when the London & Southampton Railway had separated the northern part of the estate along Battersea Park Road from the bulk of the property around the farmhouse itself. The executors petitioned against the W.L.E.R. but did not object to the L.C.D.R. Metropolitan Extension which crossed the eastern edge of the property,[36] and in December 1860 the L.C.D.R. bought the farmhouse and 68 acres of land for an average price of £500 per acre.[37] Up to this date the Longhedge Farm estate had suffered from neglect, but in 1863 Phillip Flower, a wealthy Australian merchant, entered the scene.

In June Flower bought 25 acres for £1,000 an acre in order to lay a road from Clapham to Battersea Park Road, to link up with the road being constructed by the Park Commissioners from Battersea Park Road to Chelsea Bridge, and in January the following year he bought a further 45 acres for £44,000.[38] Construction of houses began later in that year, and by 1868 214 houses had been completed, 180 of them on that part of the property on the northern side of the L.S.W.R.[39] The estate, now called 'Park Town', lay right in the path of the L.B.S.C.R. high level line of 1864; in the southern portion of the estate the viaducts sliced off part of the gardens of the new houses in Broughton Street, but in the northern section the viaduct cut across the new roads at bedroom level and involved the demolition of 90 houses even before they were occupied.[40] As the 'Clapham Gazette' commented in January 1865:-

> 'Such a fearful waste of property ought not to be permitted by the legislature.'[41]

This destruction was paid for by the railway but the greatest threat to

the profitability of the estate as a business venture came from the possibility that the railways might prevent the building of the lifeline of the estate, the road from Chelsea Bridge to Clapham.

Agitation for a road from Clapham to the new bridge began in 1857[42] but nothing positive was done until Flower's purchase of 1863. The northern end of the proposed line of the new road was blocked by railways, in particular by the W.E.C.P.R. line which crossed the Longhedge Estate on the level. In the same year the promoters of the new road, to be called 'Queens Road', obtained an Act of Parliament despite the opposition of the L.B.S.C.R. and the L.C.D.R., to gain access to the land owned by these railway companies.[43] Work on this section of the road began in October 1863, but was abandoned on the 5th November, because labourers from the L.C.D.R. removed the roadmakers' tools and filled in their trenches every time they went to lunch![44] A month later an agreement was reached in Chancery between Flower and the railway companies, and under the terms of this agreement Flower would not build a bridge over the W.L.E.R., but would erect a bridge to carry the railway over the road.[45] The new road was formally adopted by the Wandsworth Board of Works in 1869.[46]

Queens Road was made despite the opposition of the railway companies because of the wealth and determination of the developer, Phillip Flower, Sheepcut Lane had no such powerful champion to defend it against the railways. Sheepcut (once Sheepgut, now Sheepcote) Lane ran from the southern end of Battersea High Street, along the southern edge of the Battersea Common Field. Unfortunately, it also ran across the point where the proposed West London Extension Railway divided into three branches to make connection with the L.S.W.R. and the L.B.S.C.R., and the new railway was to cross the old right of way in three different places. The engineer

to the W.L.E.R. told the Commons committee that while parish roads would be crossed by bridges, the company made no provision for private roads like Sheepcut Lane.[47] It was common policy for railways at this time to claim the right to stop up all but roads adopted by the local authorities, and as nearly all new roads were private to begin with, communications between new housing estates could be drastically curtailed by newly constructed railways. The W.L.E.R. Act of 1859 left the status of Sheepcut Lane unclear,[48] but when the company had to return to Parliament to gain power to raise more capital in 1861, the directors took the opportunity to secure the right to stop up Sheepcut Lane.[49] In February 1862 the Wandsworth Board of Works asked the W.L.E.R. to build bridges across Sheepcut Lane but the directors declined, and in December of that year the board gave up the struggle, deciding to incur no more expense in the matter. The editor of the 'Clapham Gazette' commented:-

> A little energy at first would have prevented the evil complained of, but unfortunately the members for Battersea then viewed the shutting up of this road as a matter of no importance.[50]

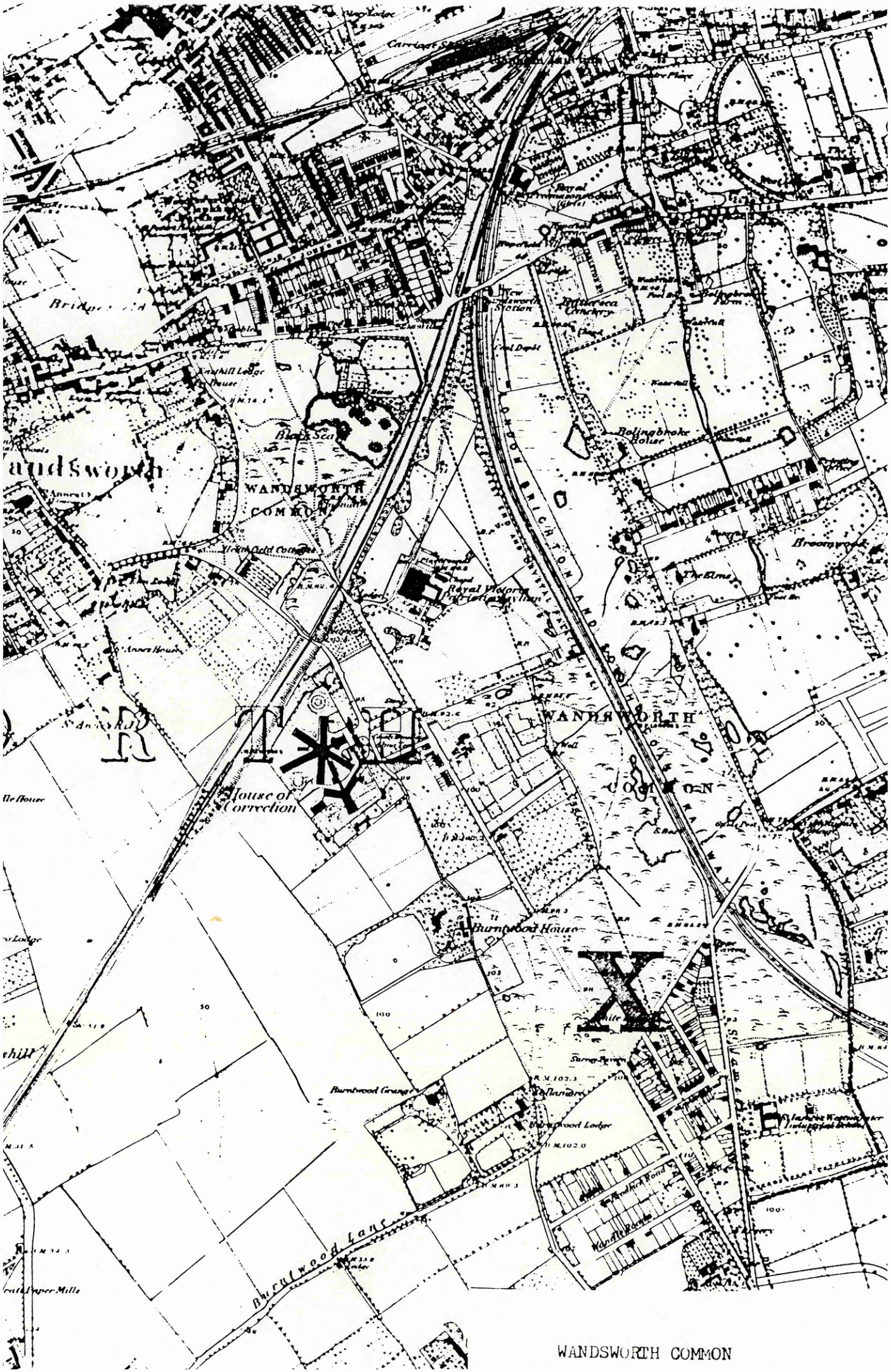
Today Sheepcote Lane stops dead at Latchmere road, the W.L.E.R. had deprived the locality of the benefit of an alternative route to Battersea Park Road from Queens Road to Falcon Road.

The railways built between 1851 and 1871 reinforced the barrier which divided north and south Battersea, first created by the embankment of the London & Southampton Railway in the 1830s. They also added a new east - west obstacle; the L.C.D.R. and associated lines from Wandsworth Road to the Grosvenor Bridge sharply cut off the easternmost part of Battersea, the parish of St. George Nine Elms, from the greater part of the parish which lay to the west of these lines. This barrier, and the

concentration of railway employment in St. George's, made the eastern extremity of Battersea a separate community well into the early years of this century.[51] After the Battersea Park, the power station, and the gasholders, the railway viaducts are the most conspicuous features of the north Battersea landscape today. Neither from the ground or from a train crossing these viaducts, is the pattern comprehensible; the whole system can only be seen clearly in an aerial photograph, and its ramifications cannot be understood without a knowledge of the history of its construction. In that part of Battersea south of the main road from London to Kingston, the presence of the railway is not manifested by viaducts but by the great cutting driven by the W.E.C.P.R. down the length of Wandsworth Common.

In the years from 1851 to 1871 public attitudes towards common land around London changed from indifference to a concern that rapidly dwindling open space should be preserved. This concern resulted in the Doulton Committee on Metropolitan Open Spaces of 1865,[52] and in the Metropolitan Commons Act of 1866, which prevented the further enclosure of common land in the London area. The level of public interest in commons was aroused, in part, by the policy of railway promoters to lay their tracks over commons wherever possible.

The three parishes of the study area, Battersea, Wandsworth and Putney, had shares in three major tracts of common land, Clapham, Wandsworth and Wimbledon Commons. Wandsworth Common, shared almost equally by Battersea and Wandsworth, had been subject to piecemeal enclosure at least since the beginning of the century. The London & Southampton Railway had taken a route across the north-west corner in 1838, but the greatest harm was done by the West End of London & Crystal



WANDSWORTH COMMON

Palace Railway which was laid in cutting which ran from north to south down the whole length of the common in 1856. The railway company paid Lord Spencer, the lord of the manor, £5200 for 30 acres;[53] this is just over £170 per acre, in 1860 the L.C.D.R. paid £500 per acre for Longhedge Farm. Even allowing for the fact that Wandsworth Common was further from London than Longhedge Farm, the low price offered and accepted for common land suggests that Lord Spencer was less certain of his right to dispose of common land as he wished than his successor claimed to be in 1865.

There were later enchroachments on Wandsworth Common, in 1857 the Royal Victoria Patriotic Fund for orphans of the Crimean War, acquired 52 acres in the angle between the L.S.W.R. and the W.E.C.P.R. lines. But it was the damage inflicted by the W.E.C.P.R. that was most resented; in 1865 Alderman Rose, a resident on the east side of the common, told the Doulton Committee that in 1852:

> Wandsworth Common was then in the same position as Clapham Common is now, except that it was more rural, and in many respects more beautiful than Clapham Common is.[54]

The railway company had used 13 acres of the land taken to provide material for the embankment at Crystal Palace with the result that the heart of the open space was flooded during the winter months. More seriously the railway cutting separated the common into discrete parts:

> The railway has divided the common that we who live on this side do not know those who live on the other.[55]

But the fate of Wandsworth Common was a side issue in the great controversy that led to the setting up of the Doulton Committee, this was Lord Spencer's plan to develop both Wimbledon and Wandsworth Commons for building. In Autumn 1864 Lord Spencer promoted a bill to sell Putney

Heath, (that part of Wimbledon Common north of the Kingston Road), for building, and to turn the remainder into a public park with a house for himself in the middle.[56] The bill was opposed by the commoners and the dispute ran on until 1871 when the commoners and Lord Spencer reached agreement. All rights on Wimbledon Common were transferred to trustees, Lord Spencer was to receive an annual sum in compensation which was to be raised by a rate levied on all houses worth more tham £35 per annum within three-quarters of a mile of the common.[57] As part of this agreement Lord Spencer agreed to forgoe the enclosure of Wandsworth Common, which was transferred to conservators in 1871.[58] Although this understanding prevented further damage to Wandsworth Common, its integrity as a single open space had been ruined by the cutting of the W.E.C.P.R.

The compensation offered by the railway companies to the general public for the desecration of the commons was an improvement in train services and more stations. The following table shows the opening dates of those railway stations in the study area that came into service in the years from 1851 to 1871.

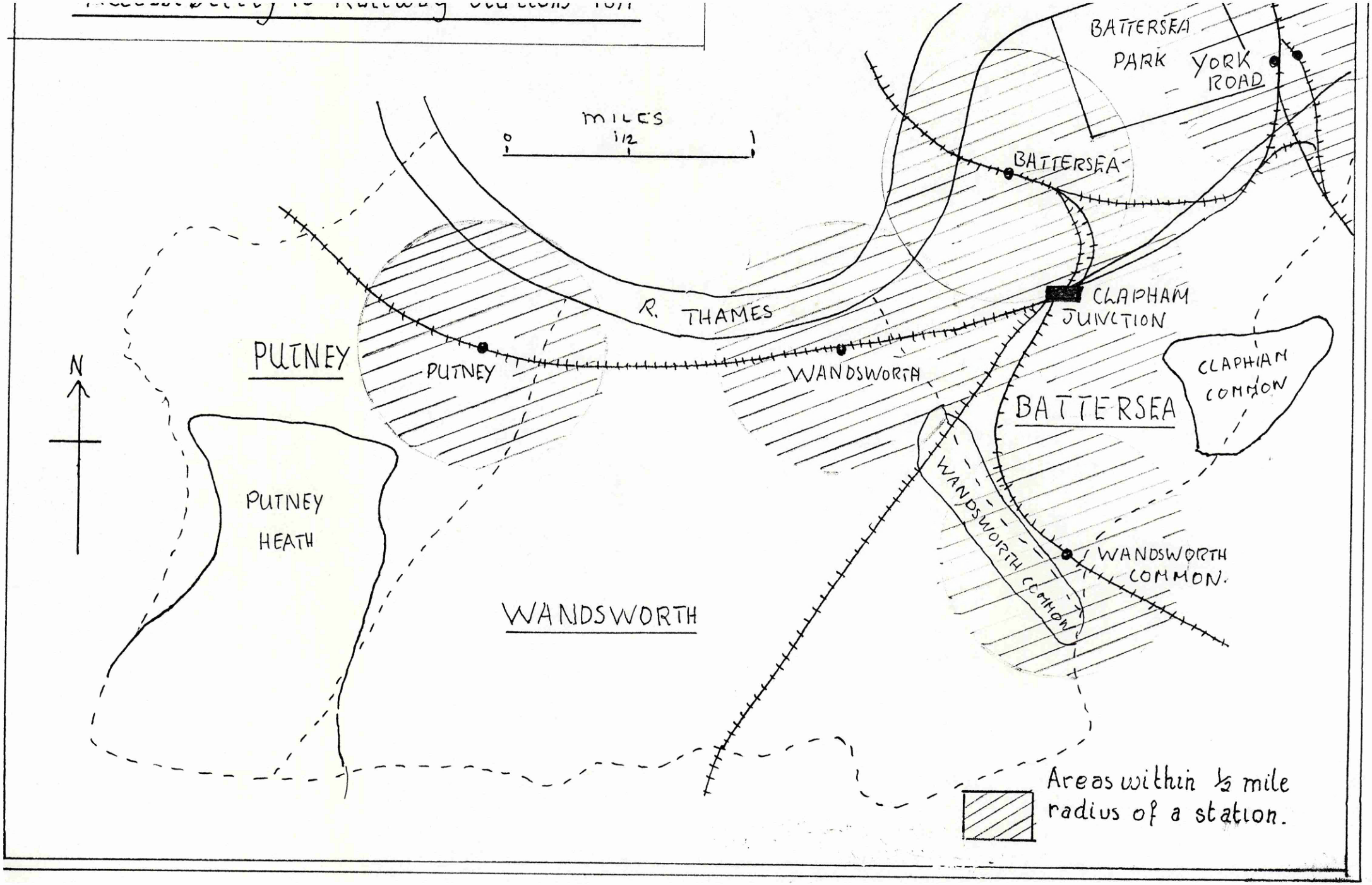
Table No.3 - Railway Stations opened 1851 - 1871

Station	Company	Opening Date	Closing Date
New Wandsworth	L.B.S.C.R.	29.3.1858	1.11.1869
Pimlico	L.B.S.C.R.	29.3.1858	1.10.1860
Battersea Park & Pier	L.B.S.C.R.	1.10.1860	1.11.1870
Clapham Junction	L.B.S.C.R./L.S.W.R.	2.3.1863	--
Battersea	W.L.E.R.	2.3.1863	21.10.1940
Battersea Park(York Rd).	L.B.S.C.R.	1.5.1867	--
Battersea Park Road.	L.C.D.R.	1.5.1867	3.4.1916
Stewarts Lane	L.C.D.R.	1.5.1863	1.1.1867
Stewarts Lane	L.B.S.C.R.	29.3.1858	1.12.1858
Wandsworth Common (1)	L.B.S.C.R.	1.12.1856	1.6.1858
Wandsworth Common (2)	L.B.S.C.R.	1.11.1869	--

Source:- R.H. Clarke - A Southern Region Record (1964)

Eleven new stations were opened between 1851 and 1871, all of them in Battersea, but six were closed within a decade. Stations on the high level lines were longer lived; 'Battersea Park Road' on the L.C.D.R., where it crossed Battersea Park Road, lasted until 1916 and the nearby 'York Road' station of the L.B.S.C.R. survives as 'Battersea Park'.[59]

Although the parish of Battersea had many stations within its boundaries, only one has been actually called simply 'Battersea', this was the halt built by the W.L.E.R. at the point where that line crossed Battersea High Street. The company agreed to provide a station following a memorial from the parishioners,[60] but it was destroyed by fire in 1940 and not replaced. By far the most important station within the bounds of Battersea parish is the misleadingly named 'Clapham Junction'. Ever since 1846, when the Richmond line joined the main line of the L.S.W.R., where that line crossed the Falconbrook and Falcon Lane, 'Falconbridge' was the obvious site for an interchange station, yet eighteen years were to pass before such a station was built. Had the W.E.C.P.R. succeeded in getting running powers over the L.S.W.R. into 'Waterloo' it is possible that this would have led to the provision of an interchange station, but after the W.E.C.P.R. decided to build the Battersea branch, relations with the older company deteriorated and discussion on a joint station in March 1858 failed to end in agreement.[61] The need for joint station became imperative with the passing of the W.L.E.R. Act in August 1859 for the whole raison d'etre of this railway was to facilitate interchange between the northern and southern railways. However, even in February 1862 there were still points in dispute between the W.L.E.R. and the L.B.S.C.R.; it was not until July of that year that agreement was reached by all interested railways.[62] When the joint station was finally opened in March 1863 it was called 'Clapham Junction', not because it was in Clapham or


BATTERSEA PARK
YORK ROAD
MILES
0
1/2
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BATTERSEA
R. THAMES
CLAPHAM JUNCTION
PUTNEY
PUTNEY
WANDSWORTH
CLAPHAM COMMON
BATTERSEA
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PUTNEY HEATH
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WANDSWORTH COMMON.
WANDSWORTH
Areas within ½ mile radius of a station.

anywhere near it, but because the name 'Clapham' seemed to the confederate directors to possess a degree of respectability that Battersea lacked. Even in 1985 'Clapham Junction' remains the busiest station in south London, but it is used mainly for changing trains rather than as a point from which to begin a journey.

One of the consequences of the dispute between the L.B.S.C.R. and the L.S.W.R. was the decision of the Brighton company to open a station called 'New Wandsworth', in Battersea parish of course, but on the high road from Clapham to Wandsworth and only a few yards from the equally ineptly named 'Clapham Common' station of the L.S.W.R.[63] 'New Wandsworth' took its name from the estate then under development on the borders of Battersea and Wandsworth. The L.S.W.R. closed 'Clapham Common' when 'Clapham Junction' came into use, but 'New Wandsworth' survived until November 1869 when it was replaced by a second station called 'Wandsworth Common' built this time at the southern end of the common.

By 1871 there were few parts of Battersea more than a half a mile from a railway station, (see map), and the eastern half of Wandsworth was within half a mile of either 'Wandsworth' on the Richmond line, 'Clapham Junction', or 'Wandsworth common' stations. But there was no station within easy reach of the southern part of Wandsworth although the main line of the L.S.W.R. crossed Garratt Lane at this point. 'Putney' station was easily reached from the old village centre of Putney but the grand houses of Putney Heath and Roehampton, and the new villas of Wimbledon Park were still distant from any railway.

The growth in the number of stations meant a more convenient train service and more destinations to choose from; the expansion of weekday

train services from stations in the study area to London termini between 1850 and 1871 is set out in the following table:-[64]

Table No.4 - Weekday Train Services from Stations in Battersea, Wandsworth & Putney to London 1850 - 1871

Local Station	Terminus	Company	1850	1860	1865	1871
Wandsworth	Waterloo	L.S.W.R.	15	19	25	35
Putney	"	L.S.W.R.	15	21	33	41
Clapham Junction	"	L.S.W.R.	--	--	60	77
" "	Fenchurch St.	W.L.E.R.	--	--	6	--
" "	Victoria	L.B.S.C.R.	--	--	74	78
" "	London Bridge	L.B.S.C.R.	--	--	24	8
" "	Ludgate Hill	L.C.D.R.	--	--	--	9
" "	Broad Street	W.L.E.R.	--	--	--	28
York Road	Victoria	L.B.S.C.R.	--	--	--	95
" "	London Bridge	L.B.S.C.R.	--	--	--	22
Battersea Park Rd.	Victoria	L.C.D.R.	--	--	--	71
" " "	Ludgate Hill	L.C.D.R.	--	--	--	66
Wandsworth Common	Victoria	L.B.S.C.R.	--	--	--	55
" "	London Bridge	L.B.S.C.R.	--	--	--	6
Battersea	Victoria	W.L.E.R.	--	--	15	41
"	London Bridge	W.L.E.R.	--	--	4	--
"	Waterloo	L.S.W.R.	--	--	--	14
"	Ludgate Hill	L.C.D.R.	--	--	--	13
"	Broad Street	W.L.E.R.	--	--	--	28

Source: Bradshaw's Railway Guide, June 1850, June 1860, June 1865, June 1871.

Although even at the end of this period, the only direct train service from 'Wandsworth' and 'Putney' was to 'Waterloo', the frequency increased from 15 trains from each station in 1850 to 35 from 'Wandsworth' and 41 from 'Putney' in 1871. The greater number of trains from 'Putney' suggests that more commuters used that station than used 'Wandsworth'. Even if the only direct service from these stations was to 'Waterloo', by 1871 a great variety of destinations were available by changing trains at 'Clapham Junction'.

The most spectacular increase in services and destinations occurred in Battersea, but until the opening of 'Victoria' in October 1860, 'Waterloo' was the only London terminus accessible to Battersea people,

with the exception of 'London Bridge' which could be reached in 50 minutes via 'Crystal Palace'. The real changes came after the opening of the L.C.D.R. and the W.L.E.R. lines; in 1865 there were 60 weekday trains from 'Clapham Junction' to 'Waterloo', 74 to 'Victoria', 24 to 'London Bridge, and six to 'Fenchurch Street' by way of the W.L.E.R. and the North London Railway. Further improvements in both train frequency and choice of destinations happened after the opening of the L.C.D.R. and L.B.S.C.R. high level lines, and the South London line in 1867. By 1871 'Clapham Junction' had 77 weekday trains to 'Waterloo', 78 to 'Victoria', 8 to 'London Bridge', via 'Crystal Palace', and a new service of nine trains to the L.C.D.R. terminus at 'Ludgate Hill' which took 45 minutes. There were also 28 trains a day to 'Broad Street' on the North London line; this journey took 55 minutes. But the best services to the City were from the L.B.S.C.R. and L.C.D.R. stations in Battersea Park Road; 22 trains a day went over the South London line to 'London Bridge' in 30 minutes, and 66 trains a day made the 30 minute journey to 'Ludgate Hill'.

By 1871 there were ample train services to London from most parts of the study area for general purposes, but for those who had to be at work in the City by nine a.m. the facilities available were less than adequate. Table 5 shows all weekday services which arrived at metropolitan termini before 9 a.m.

Table No.5 - Early Morning (Before 9 a.m.) train Services from Stations in Battersea, Wandsworth & Putney to London - 1850 - 1871

Local Station	Terminus	Company	1850	1860	1865	1871
Wandsworth	Waterloo	L.S.W.R.	2	2	2	5
Putney	"	L.S.W.R.	2	3	5	6
Clapham Junction	"	L.S.W.R.	1	1	4	9
" "	Fenchurch St.	W.L.E.R.	-	-	1	-
" "	Victoria	L.B.S.C.R.	-	-	6	8
" "	London Br.	L.B.S.C.R.	-	-	5	3
" "	Ludgate Hill	L.C.D.R.	-	-	-	1
" "	Broad St.	W.L.E.R.	-	-	-	3
York Road	Victoria	L.B.S.C.R.	-	-	-	12
" "	London Bridge	L.B.S.C.R.	-	-	-	5
Battersea Park Rd.	Victoria	L.C.D.R.	-	-	-	9
" " "	Ludgate Hill	L.C.D.R.	-	-	-	14
Wandsworth Common	Victoria	L.B.S.C.R.	-	-	-	6
" "	London Bridge	L.B.S.C.R.	-	-	-	1
Battersea	Victoria	W.L.E.R.	-	-	-	2
"	London Bridge	W.L.E.R.	-	-	-	-
"	Waterloo	L.S.W.R.	-	-	-	2
"	Ludgate Hill	L.C.D.R.	-	-	-	2
"	Broad Street	W.L.E.R.	-	-	-	3

Sources:- Bradshaw's Railway Guide - June 1850, 1860, 1865, 1871.

The difference between the total number of journeys and those before 9 a.m. is most marked in the case of 'Clapham Junction', for even in 1871 only one train reached 'Ludgate Hill' before 9 a.m., and only three trains arrived in 'Broad Street' before that time. The best early morning services were those from the two stations in Battersea Park Road; there were five trains to 'London Bridge' and no less than 14 to 'Ludgate Hill'. What was even more significant than the frequency of these trains was the fact that the lines with the most early morning trains to London also had the lowest fares.

Single and return fares from stations in the study area to metropolitan termini are set out in tables 6 and 7:

Table No.6 - Single Fares from Stations in Battersea, Wandsworth and Putney to London - 1860 - 1871

Local Station	Terminus	Company	1860			1871		
			1st.	2nd.	3rd.	1st.	2nd	3rd.
Wandsworth	Waterloo	L.S.W.R.	8d	6d	4d	8d	6d	4½d*
Putney	"	L.S.W.R.	9d	7d	5d	9d	7d	5½d*
Battersea	Victoria	L.B.S.C.R.	-	-	-	4d	3d	2d
York Road	"	L.B.S.C.R.	-	-	-	4d	3d	2d
Clapham Junction	Waterloo	L.S.W.R.	-	-	-	8d	6d	4d*
" "	Ludgate Hill	L.C.D.R.	-	-	-	1/	9d	6d
Battersea Park Rd.	" "	L.C.D.R.	-	-	-	1/	9d	6d
Clapham Junction	Victoria	L.B.S.C.R.	-	-	-	6d	4d	3d
" "	London Bridge	L.B.S.C.R.	-	-	-	1/3	1/	7d
Wandsworth Common	" "	L.B.S.C.R.	-	-	-	1/3	1/	7d
Battersea	Broad St.	W.L.E.R.	-	-	-	1/	9d	-

Sources:- Bradshaw's Railway Guide - June 1860, 1871, *1865 Fares

Table No.7 - Return Fares from Stations in Battersea, Wandsworth and Putney to London - 1871

Local Station	Terminus	Company	1st.	2nd.	3rd.
York Road	Victoria	L.B.S.C.R.	6d	4d	3d
Clapham Junction	Ludgate Hill	L.C.D.R.	1/6	1/	-
Battersea Park Rd.	" "	L.C.D.R.	1/6	1/	-
Clapham Junction	Victoria	L.B.S.C.R.	9d	6d	4d
Wandsworth Common	"	L.B.S.C.R.	1/	9d	6d

Source:- Bradshaw's Railway Guide June 1871.

There had been little change in single fares since 1850; in that year the single 3rd class fare from 'Clapham Common' to Waterloo was 5d.; in 1865, when 'Clapham Common' had been replaced by 'Clapham Junction' the same journey cost 4d. or 4/ a week travelling expenses. Fares from 'Putney' and 'Wandsworth' to 'Waterloo' were similar, 5/6d and 4/6d respectively for twelve journeys, third class. Such fares were too high for workers below the status of senior clerk. The cost of travel to 'Victoria' was less than to 'Waterloo'; in 1871 regular travel third class from 'Battersea' station on the W.L.E.R. to 'Victoria' cost only 2/ a week, but the neighbourhood of 'Victoria' was not yet a major source of employment. Towards the end of the period under consideration in this chapter two

developments made travel cheaper, the growth of daily return tickets, and the introduction of workmen's trains.

By 1871 both the L.B.S.C.R. and the L.C.D.R. were offering return tickets by third class from 'York Road' and 'Battersea Park Road' to 'Victoria' for 3d a day, and the Brighton company carried third class passengers from 'Clapham Junction' to 'Victoria' for 4d a day. Such fares give a weekly cost of 1/6d and 2/ respectively, within the reach of most clerical workers and of artisans in regular employment, but were still too high for the majority of workers. But in 1871 the City was still the greatest source of clerical employment, and the L.C.D.R. offered return tickets to 'Ludgate Hill' from 'Clapham Junction' for 1/ second class, or 6/ a week, but there were no third class return fares on this route. However, the L.C.D.R. was the first railway company operating in the study area to offer special workmen's tickets. The Metropolitan Railway had voluntarily introduced workmen's trains in 1864, but the L.C.D.R. was the first railway to be obliged to operate such trains by law, and they began running workmen's trains on the Metropolitan Extensions in February 1865.[65] By 1871 workmen's trains left 'Battersea Park Road' for 'Victoria' at 5.29 a.m. and 6.29 a.m., and the L.B.S.C.R. ran workmen's trains from 'York Road' to 'London Bridge' over the South London line at 5.06 a.m., 5.16 a.m. and 6.46 a.m. Thus it was the eastern part of Battersea, the streets close to the two stations in Battersea Park Road, that was accessible to mass travel by the majority of workmen, both by reason of the frequent and early train services, and because of the cheap fares offered.

In 1871 the only rivals to railway travel were the horse omnibus and the river steamers. Travel by water was still the cheapest way for people living in those parts of the locality within easy reach of the piers. In

1862 the London Steamboat Co. took over the Iron Steamboat Co. and the City Steamboat Co.[66] But they continued to operate under the old names for some years afterwards, and in 1865 the City and the Iron Steamboat Companies operated a ten minute service from 8 a.m. to dusk, from Chelsea and Battersea to London Bridge for 3d single fare. But the steamers were of limited value for regular travel to work in the City because of their late start and early finish, and because of delays due to bad weather. Horse omnibus services had changed little since 1850, the most frequent routes were still those from Putney Bridge to London Bridge by way of Charing Cross, and from Clapham Common to Gracechurch Street. There was a ten minute service on the route from Putney from 9 a.m. and on the route from Clapham Common from 7.55 a.m. The late starts were a real disadvantage to those wishing to use the omnibus for travel to work in the City, for the journey was long and increasingly subject to delay from traffic congestion. The horse omnibus was also a costly form of transport; the fare from Putney to the Bank and from Clapham Common to Gracechurch Street was 6d single,[67] a rival to the horse omnibus, even more serious than the suburban railway, made its first appearance in the study area in 1871; for in that year a horse tramway was opened from the south side of Westminister Bridge to Clapham High Street.[68] But the full impact of the horse tram on suburban development was not felt until the 1880s; in 1871 the railway made regular travel to work possible for any member of the middle class resident in Battersea, Wandsworth and Putney, who lived in reasonably close proximity to a station. But regular travel by the working class was only practicable from the eastern part of Battersea served by the L.C.D.R. and the South London line. Yet it was in this part of the study area that the railways made their greatest contribution to local employment.

The expanding railway network and services demanded more locomotives and stock, and the Nine Elms works of the L.S.W.R. was modernised by J.H. Beattie, who succeeded J.R. Gooch in 1850.[69] In 1860 the directors of the L.C.D.R. decided to build their own stock, and after rejecting a site at Faversham, selected Longhedge Farm. The reasons for choosing a site in London was probably as Edwin Course suggests, to be near to existing supplies of skilled labour and cheap housing. The financial difficulties of the company delayed completion of the works, and the first locomotive was not delivered until 1869.[70]

By the 1870s the L.S.W.R. works at Nine Elms was a major employer of labour in Battersea; in 1877 there was a total of 1,348 workers, 780 in the locomotive department and 568 in the carriage department. A hundred members of the carriage department were based at 'Clapham Junction', thus bringing industrial work to an area that had been market gardens less than twenty years earlier. The labour force at Longhedge was more modest, as befitted the finances of the L.C.D.R.; there were only 395 employees in all departments in 1881.[71] Both works provided regular, and as a high proportion of the work force were skilled men, well-paid work. Although the railway workshops, especially Nine Elms, were major local employers, their operations were on a small scale when compared with the Great Eastern works at Stratford which employed 3,000 men in 1872,[72] and the Swindon works of the Great Western which gave work to 4,000 men in 1875.[73] Wages were high when compared with the average for all London workmen estimated to be 15/ to 40/ a week in 1872,[74] and with similar grades in other railway workshops. Fitters working for the L.S.W.R. were paid 34/ a week in 1877, and in 1881 the L.C.D.R. paid its fitters 35/ a week; the national average for this grade in 1869 was 28/7.69d a week. This was also true of other grades; the L.S.W.R. paid turners 33/ a week against

the national average of 28/3.76d, and boilermakers 38/ against the national average of 27/5.28d.[75]

Although the railways were considerable employers of local labour, there is no evidence that they attracted any other industries to the locality. Most manufacturers chose to site their works on the river bank where coal and raw materials could be delivered cheaply by water. But the new lines built in the 1860s certainly attracted the distributive trades to Battersea: as goods trains were prohibited from crossing the river to 'Victoria', the railway companies chose to establish goods depots as close to the river crossing as possible. The L.S.W.R. opened a goods depot in Falcon Lane in 1869, and the Midland Railway followed with a depot on the L.C.D.R. line in Wandsworth Road in 1874.[76] These depots gave employment to porters, carters and coal merchants at localities well away from the old established factory area on the banks of the Thames; for example, in 1872 the Joint Stock Coal Co., Charrington Sells & Co., and the Silkstone and Welsh Coal Co., all had depots on Wandsworth Common.[77]

Like the railways, the omnibuses also gave work to local people, although this tended to be less regular and not so well paid; in 1857 the London General Omnibus Co., paid its drivers 6/, and its conductors 4/ a day.[78] Omnibus men, unlike engine drivers, were also likely to be laid off when the weather was bad or when trade was poor. The river trades continued to give work to steamboat operators and bargemen, and in 1855 the Citizen Steamboat Co. began to build its boats at Nine Elms. Nine boats were launched between 1855 and 1871 the largest being the 'Citizen S' of 78 tons, completed in 1866.[79] The largest craft of all built at Nine Elms was the 'Victoria' of 96 tons which was delivered to W.H. Stratton in 1860.[80] Steamboat construction was not the only industry

drawn to the banks of the Thames, in the years from 1851 to 1871, and it was on Thameside that the greatest expansion of employment occurred, outside the railway workshops.

One of the attractions of Thameside in Battersea was that land was still available, which was no longer true of the river bank closer to the centre of London. In 1865 the London Gas Co., moved from Lambeth to Nine Elms, eventually the gasworks spread on both sides of Nine Elms Lane and competed with the L.S.W.R. locomotive works for land.[81] At the same time the Wandsworth Gasworks, at the mouth of the river Wandle continued to expand; the company had achieved a monopoly of gas supply to the area by 1871.[82] The gasworks attracted various subsidiary industries, especially chemical works, and in 1861-62 Hoplins and Williams opened a chemical plant close to Wandsworth Gasworks.[83]

The London Gas Co. was not the only firm to move into Battersea from a more constricted site closer to town; in the early 1860s Price's closed their candle factory in Lambeth and concentrated their production at the Battersea premises in York Road. In time the candle works occupied all ten acres of the old York House site.[84] Another major industry to have its local origin in this period was the making of crucibles; in 1856 Morgan's crucible works were founded in an old pottery close to Battersea parish church.[85] By 1871 nearly all of the Battersea riverside, with the exception of the river frontage of Battersea Park, was given over to the noxious trades. As well as the gasworks at Nine Elms, there were white lead manufacturers in Bridge Road, and May & Baker's chemical plant in Church Road.[86] There was also a smaller concentration of such trades in Stewarts Lane and New Road, close to the L.S.W.R. and L.C.D.R. lines. Industry held on in the Wandle Valley too, although the calico printers

had gone by 1871. At this date textiles were represented by the Wandsworth Flock Co. in Garratt Lane; there were also paper mills, colour makers, and bone and manure merchants in Garratt Lane at this date. Putney remained almost entirely residential; industry was confined to the Anchor Brewery and Palmer & Jones's sauce works in Gardeners Lane.[87]

It is difficult to compare the local employment structure in 1871 with that which existed twenty years earlier because occupations are classified in different ways in the respective census reports of 1851 and 1871. Data on those occupations for which comparisons are possible are set out in Table No.8. Figures are presented for the entire Wandsworth Registration District, for Camberwell, Hampstead and the whole of London.

Table No.8 - Occupations of Males & Females over 20 years old 1851 compared with 1871.

1. London
2. Wandsworth
3. Hampstead
4. Camberwell

Numbers.

Occupation	1851				1871			
	1	2	3	4	1	2	3	4
Public & Prof.	91065	1718	610	2067	109313	3816	1777	3417
Domestic Service	193864	5923	1873	5258	231688	10191	5422	6247
Transport	61599	830	163	831	102851	2649	570	2260
Agriculture	21407	1868	313	965	25727	1928	500	1094
Labourers	44178	1081	272	672	92332	4045	567	2423

Percentages

Occupation	1851				1871			
	1	2	3	4	1	2	3	4
Public & Prof.	10.1	9.2	13.3	11.1	8.8	8.6	13.6	9.4
Domestic Service	21.5	31.9	40.9	28.2	18.6	23.1	41.5	17.2
Transport	6.8	4.5	3.6	4.5	8.3	6.0	4.4	6.2
Agriculture	2.4	10.1	6.8	5.2	2.1	4.3	3.8	3.0
Labourers	4.9	5.8	5.9	3.6	7.3	9.1	4.3	6.8

Sources:- PP HC 1852-53 (1691.1) vol. LXXXVIII 1. Table XXVII
PP HC 1873 (872) vol. LXXI Div. 1. Table 13.

None of the compared occupations show an absolute decline in numbers between 1851 and 1871; even agriculture, which occupied 10% of the

workforce of Wandsworth in 1851 but only 4% in 1871, held on to roughly the same number of workers. The number of transport workers in the district rose from 830 (4.5%) in 1851 to 2649 (6%) in 1871: the percentage rise was similar to that experienced in Camberwell and London as a whole, it would have been much higher in Wandsworth if the employees in the locomotive works had been included. Work on the railways, either in the workshops or on the line, was of especial importance to Battersea, in 1851 only 78 Battersea residents worked for the railways, but by 1871 this figure had risen to 1136, 858 men engaged in the traffic department, and 278 in engineering including the workshops.[88] When these figures are compared with those give for the total workforce in the workshops on page 118, it is evident that both Nine Elms and Longhedge were drawing on labour from outside their immediate locality. But the largest increase in workers in Wandsworth, as in Camberwell, was in the number of labourers, there were four times as many in 1871 as in 1851. In Wandsworth this rise may be attributed not to the railways, but to employers like the gas and chemical works who gave work to a large number of unskilled men. It is interesting to note that in Wandsworth, as in Camberwell, the percentage of the workforce in domestic service fell between 1851 and 1871 although the actual number of servant-employing households grew in this period, they were being overtaken by families that could not afford domestic help. But domestic work was not restricted to private households, it was becoming increasingly available in the public institutions which moved into Wandsworth, Battersea, and Putney in this period.

Public institutions included the Middlesex County Lunatic Asylum which had occupied the Springfield Estate since 1840,[89] and St. James' School, Wandsworth Prison, and the Royal Victoria Patriotic Schools, all on

Wandsworth Common. Further west Melrose Hall, deserted by J.A. Beaumont in 1861, was now a hospital for incurables;[90] and Bessborough House became a Jesuit seminary in the same year.[91]

All these institutions were established before the great housing boom of the late 1860s, which seems to lend some support to Whitehand's contention that public bodies could build closer to the urban fringe in times of low demand for housing than in times of boom.[92] But there were other, more local, factors at work also. In the case of St. James's School and the Royal Victoria Patriotic Institution it was the availability of common land which the lord of the manor could alienate more easily for charitable purposes than for speculative building. Where Melrose Hall, Manresa House and Springfield are concerned, it was the existence of large houses no longer required by their original owners, and which were, because of their closeness to London, unlikely to attract similar occupiers.

These public institutions influenced the course of suburban development by providing domestic and professional work, and in the case of the asylum and the prison, by making their immediate vicinity unattractive to developers. They also added to the total population; in 1871 the occupants of institutions totalled 4,066.[93] But the increase in the institutional population between 1851 and 1871 was only part of the much larger general rise in the population that occurred in this period.

Tables 9 and 10 show the growth in population between 1851 and 1871, for the three parishes of the study area, the other parishes of Wandsworth Registration District, and for those other registration districts that were used for comparison in the previous chapter, Lambeth, Newington, Hampstead, Camberwell, Islington and Hammersmith.

Table No.9 - Total Population - 1851 - 1871

Parish/Reg. Dist.	1851	1861	1871
Battersea Parish	10560	19600	54016
Wandsworth Parish	9611	13346	19783
Putney Parish	5280	6481	9439
Total Study Area	25451	39427	83238
Clapham Parish	16290	20894	27347
Streatham & Tooting Parishes	9023	10082	14475
Total Wandsworth Reg. Dist.	50764	70403	125060
Lambeth Reg. Dist.	137325	161844	208332
Newington Reg. Dist.	64816	82220	88722
Camberwell Reg. Dist.	54667	71488	111306
Islington Reg. Dist.	95329	153531	213778
Hampstead Reg. Dist.	11986	19106	32281
Hammersmith Reg. Dist.	17760	24519	42691

Sources:- 1851 - PP HC 1852-53 (1631) vol. LXXXV 1. Div. 1. Table 1.
1861 - PP HC 1862 (3056) vol. LI Div. 1. Table 1.
1871 - PP HC 1872 (676.1) vol. LXVII Div. 1. Table 3.

Table No. 10 - Percentage Increase in Population - 1851-1871

Parish/Reg. Dist.	1851-1861	1861-1871	1851-1871
Battersea Parish	85.61	175.60	411.52
Wandsworth Parish	38.86	48.23	105.84
Putney Parish	22.75	45.64	78.77
Total Study Area	54.91	111.12	227.41
Clapham Parish	28.26	30.84	67.88
Streatham & Tooting Parishes	11.74	43.57	60.42
Total Wandsworth Reg. Dist.	38.69	77.63	146.36
Lambeth Reg. Dist.	17.90	28.72	49.53
Newington Reg. Dist.	26.85	7.91	36.88
Camberwell Reg. Dist.	30.77	55.70	103.36
Islington Reg. Dist.	61.05	39.24	124.25
Hampstead Reg. Dist.	59.40	68.96	169.32
Hammersmith Reg. Dist.	38.06	74.11	140.38

Sources:- See Table No.9.

The most striking feature of these tables is the massive increase in the population of Battersea; in 1851 Battersea had only slightly more people than Wandsworth, by 1861 there were nearly as many inhabitants as in Clapham which had been a suburb since the beginning of the century, but by 1871 the population of Battersea was half that of the whole Wandsworth Registration District; the percentage increase for the twenty year period was no less than 411%, and 176% between 1861 and 1871 alone, a greater percentage increase than experienced by any other parish or registration district on the table. The rise in the number of inhabitants was more modest in Wandsworth, but the population of the parish doubled between 1851 and 1871. Putney's population rose even less, it was still under 10,000 in 1871, less than a quarter that of Hammersmith on the opposite bank of the river. In nearly every parish and registration district on the tables the rise in population was greater from 1861 to 1871 than from 1851 to 1861; the exceptions being Newington and Islington where the rate of increase actually fell in the 1860's and Clapham where it remained static.

Data on births and deaths are available for registration districts from the 1850's and for parishes from the 1860's, this makes it possible to isolate that component of the rise in population due to natural increase, a surplus of births over deaths, from that caused by inward migration. In fact the data minimise the effect of migration for the difference between the total rise in numbers and that due to natural increase is simply the balance of inward over outward migration. Data for each decade are set out in Table No. 11.

Table No.11 - Migration and Natural Increase - a) 1851-1861

Reg. Dist.	Population Increase	Births minus Deaths	Natural Increase Numbers	%	Balance of Inward Migration Numbers	%
Wandsworth	19639	5829	5829	30	13810	70
Lambeth	22719	19885	19885	88	2834	12
Newington	17404	10016	10016	58	7388	42
Camberwell	16821	6842	6842	41	9979	59
Islington	60012	15906	15906	27	44106	74
Hampstead	7120	1178	1178	17	5942	83
b) 1861-1871						
Wandsworth	54657	13165	13165	24	41492	76
Lambeth	46298	28347	28347	61	17951	39
Newington		Not available				
Islington	58437	22786	22786	39	35651	61
Camberwell	39818	12099	12099	30	27719	70
Hampstead	16175	2422	2422	15	13753	85

c) Parishes in Wandsworth Reg. Dist. 1861 - 1871

Parish	Population Increase	Births Minus Deaths	Natural Increase Numbers	%	Balance of Migration	Inward %
Battersea	34416	6219	6219	18	28197	82
Wandsworth	6437	1627	1627	25	4810	75
Putney	2958	930	930	31	2028	69
Clapham	6453	3006	3006	45	3447	55
Streatham/ Tooting	4393	1383	1383	31	3010	69

Sources: See Table No.9.

From 1851 to 1861 the population of Lambeth and Newington rose more by natural increase than by migration, but in other registration districts migration contributed more to the rise than did natural increase; this is especially true of Hampstead and Wandsworth registration districts. The pattern was repeated in the following decade in which migration contributed 85% of Hampstead's rise in numbers, and 76% of Wandsworth's. In all five parishes in Wandsworth registration district migration was responsible for a larger part of the rise in population than was natural increase; the smallest migration component was in Clapham where the rate of overall

increase in population was levelling out. Migration was of most significance in Battersea where the inward movement of people was responsible for 82% of the rise in population between 1861 and 1871; at least 28,197 people moved into Battersea in this decade, and in 1871 more than half of the total population had entered the parish in the previous ten years. All these newcomers needed somewhere to live, and the growth of the population is paralleled by a similar increase in the size of the housing stock.

Tables No.12 and No.13 show the size of the housing stock in 1851, 1861, and 1871, as well as the rate of increase in each decade, for the parishes in the study area, the remainder of Wandsworth registration district, and for those registration districts already discussed under population.

Table No.12 - The Housing Stock - 1851 to 1871.

I - inhabited houses.
B - houses in process of building
U - uninhabited houses.

Parish/Reg. Dist	1851			1861			1871		
	I	B	U	I	B	U	I	B	U
Battersea	1760	168	247	3125	70	154	7914	438	1385
Wandsworth	1522	7	52	1909	84	84	2964	39	357
Putney	918	26	34	1135	10	70	1603	38	153
Total Study Area	4200	201	333	6169	164	308	12481	515	1895
Clapham	2657	72	169	3404	21	98	4314	60	193
Streatham/Tooting	1419	14	98	1613	12	53	2339	89	249
Total Wandsworth R.D.	8276	287	600	11186	197	459	19134	664	2337
Lambeth	20457	212	1130	22010	243	685	28129	349	1659
Newington	10458	168	579	12740	86	307	12678	100	490
Camberwell	9452	233	927	12098	196	670	17712	359	1935
Islington	13528	549	659	20704	551	831	27079	492	2414
Hampstead	1719	26	77	2053	87	82	4348	157	399
Hammersmith	3115	140	199	4164	91	258	6719	320	874

Sources: See Table No.9

Table No.13 - Increase in Housing Stock (Inhabited + Unhabited Houses) 1851 to 1871

Parish/Reg. Dist.	1851 - 1861 No.	1851 - 1861 %	1861-1871 No.	1861-1871 %	1851-1871 No.	1851-1871 %
Battersea	1272	63	6020	184	7292	363
Wandsworth	419	26	1328	67	1747	110
Putney	253	27	551	46	804	84
Total Study Area	1944	43	7899	122	9843	217
Clapham	676	24	1025	29	1701	60
Streatham/Tooting	149	10	922	55	1071	71
Total Wandsworth R.D.	2769	31	9846	85	12615	142
Lambeth	1108	5	8093	36	9201	43
Newington	2010	18	121	1	2131	19
Camberwell	2389	23	6909	54	9498	90
Islington	7348	52	5788	27	13136	92
Hampstead	339	19	2612	122	2951	164
Hammersmith	1108	33	3171	71	4279	129

Sources:- See Table No.9

In 1851 Wandsworth registration district had less houses than any other on the tables,except Hampstead and Hammersmith, but by 1871 only Islington and Lambeth had more houses than Wandsworth. The percentage increase of 142% over the twenty years was greater than in any other registration district except Hampstead which started from a much smaller stock. Within Wandsworth registration district the housing stock grew more rapidly in Battersea than in any other parish; Battersea had less than a quarter of the total number of inhabited houses in 1851; but nearly a half of a much larger stock in 1871. The percentage increase for the two decades was 363%, twice as large a rate of growth as that experienced by any other in the registration district.

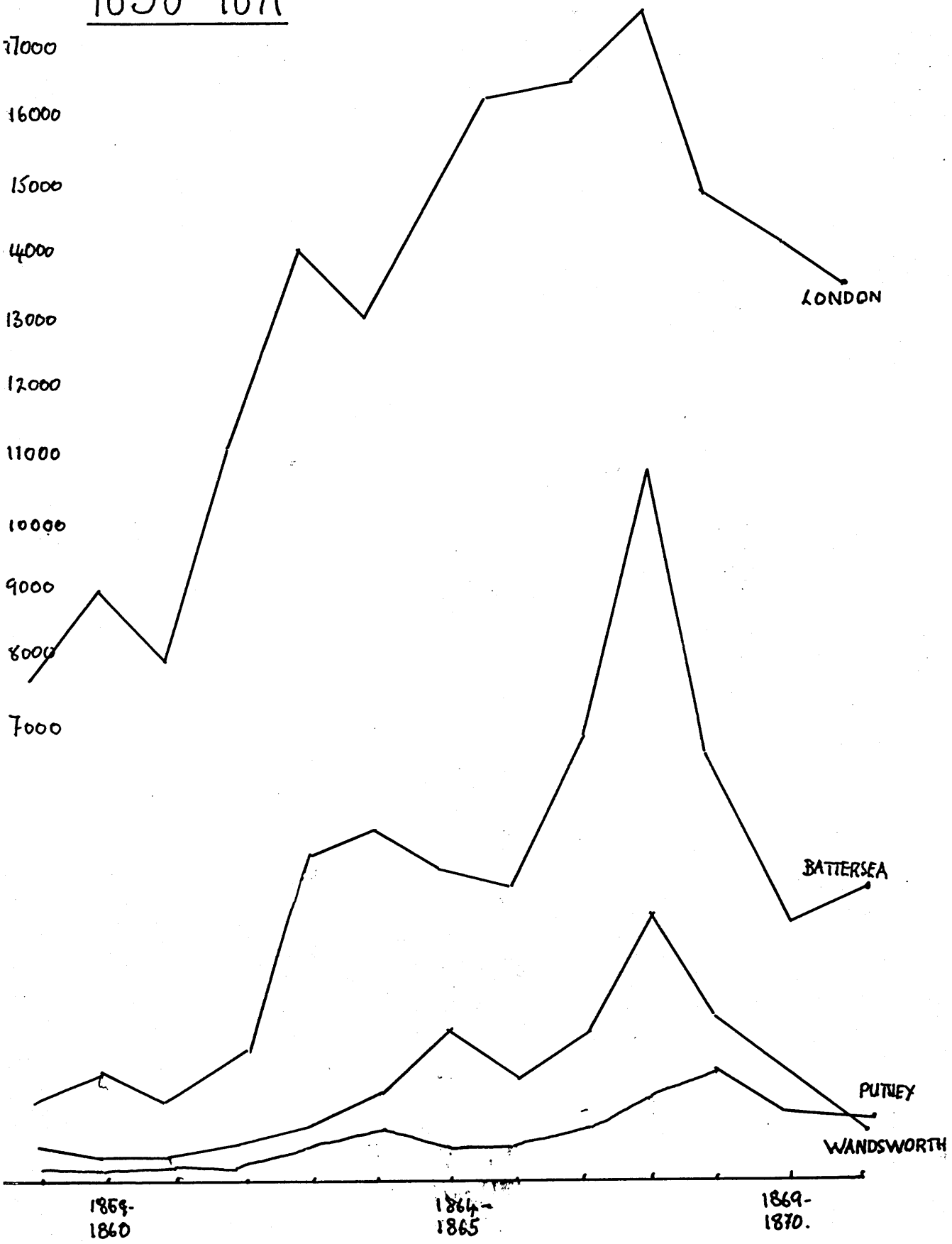
In the case of every parish and registration district except Newington and Newington and Islington, more houses were added to the stock between 1861 and 1871 than between 1851 and 1861. In Wandsworth registration district over/

three times as many houses were built from 1861 to 1871 than in the earlier decade, and in Battersea the housing stock rose by 6020 houses from 1861 to 1871, an increase of 184% in just ten years.

Although the district surveyors' returns do not survive for the 1850's and 1860s, related data on annual house construction is available from the number of notices for the building of new houses submitted to the district surveyors and published in the annual reports of the Wandsworth Board of Works from 1858/59, and notices of plans approved reported monthly in the minutes of the Board of Works. Admittedly these figures are incomplete, for houses were sometimes erected without the district surveyor's approval, and in 1862 the Wandsworth surveyor complained of the difficulty of getting notice of new buildings and of enforcing the building regulations.[94] The following graph shows the total number of houses notified to the district surveyors from 1858/59 to 1870/71, together with Parry Lewis's figures for the whole of London for the same period.

House building in Battersea, Wandsworth and Putney followed the general London pattern reaching a peak in 1867/68 then falling away rapidly. The graph for Battersea adheres most closely to that for the whole of London, as might be expected of the parish closest to the centre of town, and the one most completely absorbed into the metropolitan economy. Putney, still not linked physically to its neighbours, shows the most independence with a peak of construction a year later than in either Battersea or Wandsworth. In no case is there any marked divergence from the London pattern which suggests that investment in housing in the study area was more subject to fluctuations in the metropolitan or national economies than to purely local investment stimuli.

House building 1858 - 1871



Source: a) Wandsworth board of works - annual reports.

b) J. Parry Lewis - Building cycles and Britains growth 1965. p 69.

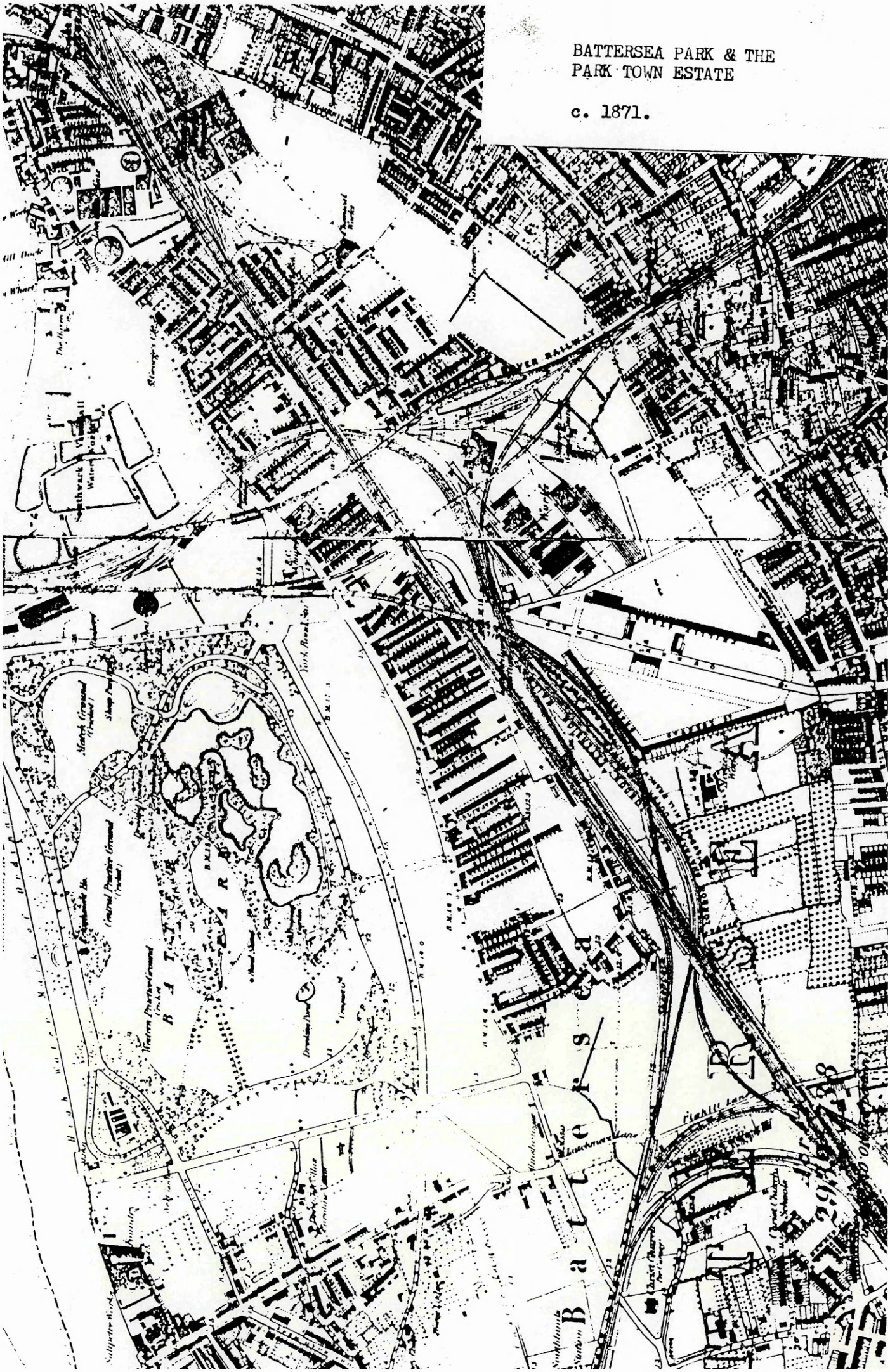
Investment in housing was not made in isolation but as part of the general economic activity. Parry Lewis claims that the house construction boom of the late 1860s was linked to the development of railways, and that the decline after 1868 was the result of the financial collapse of 1866. He explains the two year gap as the consequence of delays in housing starts and the need of builders on certain estates to build a stipulated number of houses.[95] On the other hand H.J. Dyos believed that investment in speculative building fell away when investment overseas proved especially attractive, and rose when other investment rates fell.[96] Similarly, F.M.L. Thompson said that potential investors in building were faced with a choice between:-

> Speculative investments offering prospects of high returns and safe investments with low but secure yields.[97]

It seems possible that railway development may have diverted capital away from building in the early 1860s, and that the financial crisis of 1866 could have caused investors to return to safer investment in building with the result that house building boomed until 1869.

A great many houses were built in Battersea, Wandsworth and Putney between 1851 and 1871, and a large number of builders were involved. But, as in the 1840s, operations were still small scale. In the slack year of 1859/60 35 builders erected 66 houses, 40% of the total; only one builder built more than 20 houses. At the height of the boom, in 1867/68, 161 builders were responsible for 468 houses, 33% of the total, and only 11 builders put up more than 20 houses. The situation in Camberwell ten years later was very different for in 1878/80 76 builders built more than 20 houses each, and builders responsible for less than 7 houses a piece accounted for only 12% of the houses erected in that period.[98]

Just as most builders in the 1850s and 1860s operated on a small scale, many building estates were small also. On the purely agricultural land in Battersea and Wandsworth, the legacy of open field farming was a fragmented pattern of landownership which had been broken up still further by the sales of Earl Spencer's land in 1835/36. With a few exceptions the more substantial consolidated estates were residential in character, consisting of a villa surrounded by parkland. The processes by which the small estates, often no more than a few common field strips, became covered with houses, have gone largely unrecorded except for the reports of the district surveyors noted in the minutes of the Wandsworth Board of Works, and the details of the occupants of the houses as given in the enumerators' book of the 1871 census. This type of small scale development was the norm in Battersea north of the railways, such as the streets that ran south from Battersea Park Road to the L.S.W.R. embankment. The monotonous pattern of short, parallel roads was determined in part by the pre-existence of the main road and the railway embankment, but more particularly by the line of the old common field strips owned by many different proprietors. Similar conditions prevailed in the eastern part of Battersea, in Nine Elms, where houses vied for space with gasworks, locomotive works and goods depots. One such street in this part of Battersea was Everitt Street, Nine Elms, built between May 1864 and November 1865, on six acres of land that had been market gardens owned by Edward Haward in 1838.[99] By 1871 the street was hemmed in by the gasworks on the west, the L.S.W.R. locomotive works to the south, and Nine Elms Goods depot on the east. The most unusual feature of the street was the fact that it had been run up by only one builder, S.C. Everitt, who had given it its name. All the houses were rated at less than £9 per annum in 1871,[100] yet out of a total of 56 occupied houses, 35 contained more than one family. The occupations of the residents over 20 years of age, and the birthplace of household heads, are shown in the



BATTERSEA PARK & THE
PARK TOWN ESTATE

c. 1871.

following table:-

Table No.14 - Everitt Street 1871

Occupations	Number	Birthplaces	Number
Agriculture	--	London	21
Mining	--	Battersea	--
Building	11	Southeast England	19
Manufacturing	20	Southern England	7
Transport		Eastern England	8
Warehouses	11	Midlands	5
Sea & Inland Nav.	2	Wales & South-west	4
Railways	13	Northern England	2
Roads	4	Ireland	35
Dealing	13	Scotland & O/S.	4
Industrial Services			
Clerks	--		
Labourers	50		
Others	--		
Public Service	--		
Domestic service	8		

Source:- Census 1871 - Enumerators' Books.
on microfilm - Battersea Local History Library.

Nearly half of the occupied population were unskilled labourers and thirty people worked in transport, either on the river wharves or on the railways. None of the household heads had been born in Battersea, but 21 of them came from other parts of London, and 35 from Ireland. Although Everitt Street was in easy walking distance of the South London line stations in Battersea Park Road, it had been erected before they were opened. The fact that the building of Everitt Street co-incided with the move of the gasworks from Vauxhall to Nine Elms, and the pre-dominance of unskilled labourers in the working population, suggests that migrants were attracted to the area not by the possibility of improved travel facilities to London, but by the prospects of work on the railway or in the gasworks.

Although small scale development was most common in Battersea, it was not confined to that parish, and was the prevalent type in the older parts of Wandsworth close to the old town centre, for example in the streets that

ran northwards from East Hill. One such group of streets was Tonsley Hill and Tonsley Place which were built up between May 1863 and July 1869; a total of 77 houses were constructed by seven different builders, the largest, J.E. East, built 25 houses. Both streets consist of small, two bedroom houses of a basically classical design, and unlike Everitt Street, they survive substantially unchanged today. In 1871 only three houses held more than one family, and twelve households had servants living-in. Occupations and birthplaces are set out below:-

Table No.15 - Tonsley Hill/Tonsley Place - 1871

Occupations	Number	Birthplaces	Number
Agriculture	4	London	28
Mining	--	Wandsworth	7
Building	18	Southeast England	21
Manufacturing	24	Southern England	9
Transport		Eastern England	6
Warehouses	4	Midlands	8
Sea & Inland Nav.	--	Wales & Southwest	1
Railways	4	Northern England	2
Roads	--	Ireland	3
Dealing	19	Scotland & O/S.	2
Industrial Services			
Clerks	7		
Labourers	--		
Others	--		
Public Service	12		
Domestic service	13		
Property owners	4		

Source:- Census 1871 - Enumerator's Books
on microfilm - Battersea Local History Library.

Although the working population of the streets contained seven clerks and twelve public servants who could have travelled out of the parish to work, four men still worked in local market gardens and 24 in local industries. Unlike Everitt Street, the inhabitants were not all newcomers to the district, seven household heads were born in Wandsworth. Tonsley Hill and

Tonsley Place was well placed for both 'Wandsworth' and'Clapham Junction' stations, but the pattern of occupations does not suggest a community dependent on links with London.

The three largest potential building estates in Battersea in 1851 were the lands of the Battersea Park Commissioners, the remnant of Earl Spencer's lands, (25 acres of market gardens occupied as they had been in 1831 by Samuel Poupart), and the Longhedge Farm Estate owned by the executors of the will of R.W. Southby.

Both Chelsea Bridge and Battersea Park were opened on the same day, 26th March 1858.[101] The new park was 200 acres in area which left 146 acres of potential building land; by 1857 nearly all the land on the east of the park had been sold for a total of £119,786 and most of it was taken by the West End of London & Crystal Palace Railway, leaving 103 acres to the south and west of the park still unbuilt-on in 1871. The surviving records of the Battersea Park Commissioners do not state whether the land remained unsold because offers were not forthcoming, or whether the Commissioners were reluctant to sell. One possible deterrent to development was the main Battersea sewer which ran in the open across the park until 1866.[102] Poupart's market garden was also free of houses in 1871; the estate had been cut off from its natural access to Battersea Park Road by the railway embankments and viaducts; and had to wait until the 1870's for development.

Construction of houses on the Park Town Estate, formerly Longhedge Farm, began in earnest in 1863 when all the land not taken by the railways was bought by P.W. Flower. One of Flower's first acts was to appoint James Knowles jun., the son of the architect of the Grosvenor Hotel at Victoria, to design the houses and to supervise the building of the estate.[103]

Knowles' design owed much to contemporary schemes in Pimlico and South Kensington; houses were to be in terraces with the larger properties on the Queen's Road and the smaller houses in the side streets. About half way along the southern portion of the Queen's Road, south of the railway, there was to be a square with a church. The houses were of two main types; the largest having eight rooms and a basement, and the smaller six rooms and no basement. Both types were to be built in three storey terraces with low pitched roofs.[104] Work began first north of the railway, and between 1864 and late 1865 180 houses were erected north of the railway and only 34 around Queen's Square to the south.[105] Work slowed down following the bankruptcy of the main builder in 1869,[106] and then came to halt until 1873. By 1871 all of the estate north of the railway had been covered with houses, but many of them had been demolished to make way for the L.B.S.C.R. high level line. Work was much less advanced south of the railway; there were a few houses around Queen's Square, and one side each of St. Phillip, Stanley and Broughton Streets were built up with continuous terraces which faced each other across open grazing ground.

A consideration of one of these streets, Broughton Street, will show how far Park Town had departed from the original plan of a middle-class suburb on the line of Pimlico. Out of the 46 houses completed by 1871, 38 of them were in multi-occupation, and none of them had servants living in. There was a mean of over ten occupants per house. Occupations and birthplaces are set out in the following table:-

Table No. 16 - Broughton Street - 1871

Occupations	Number	Birthplaces	Number
Agriculture	2	London	26
Mining	--	Battersea	1
Building	31	Southeast Eng.	21
Manufacture	35	Southern Eng.	11
Transport		Eastern Eng.	9
Warehousing	3	Midlands	4
Sea & Inland Nav.	--	Wales & Southwest	11
Railways	5	Northern Eng.	3
Roads	1	Ireland	5
Dealing	4	Scotland & O/S	2
Industrial Service		Not Known	1
Clerks	4		
Labourers	11		
Others	--		
Public Service	6		
Domestic service	5		

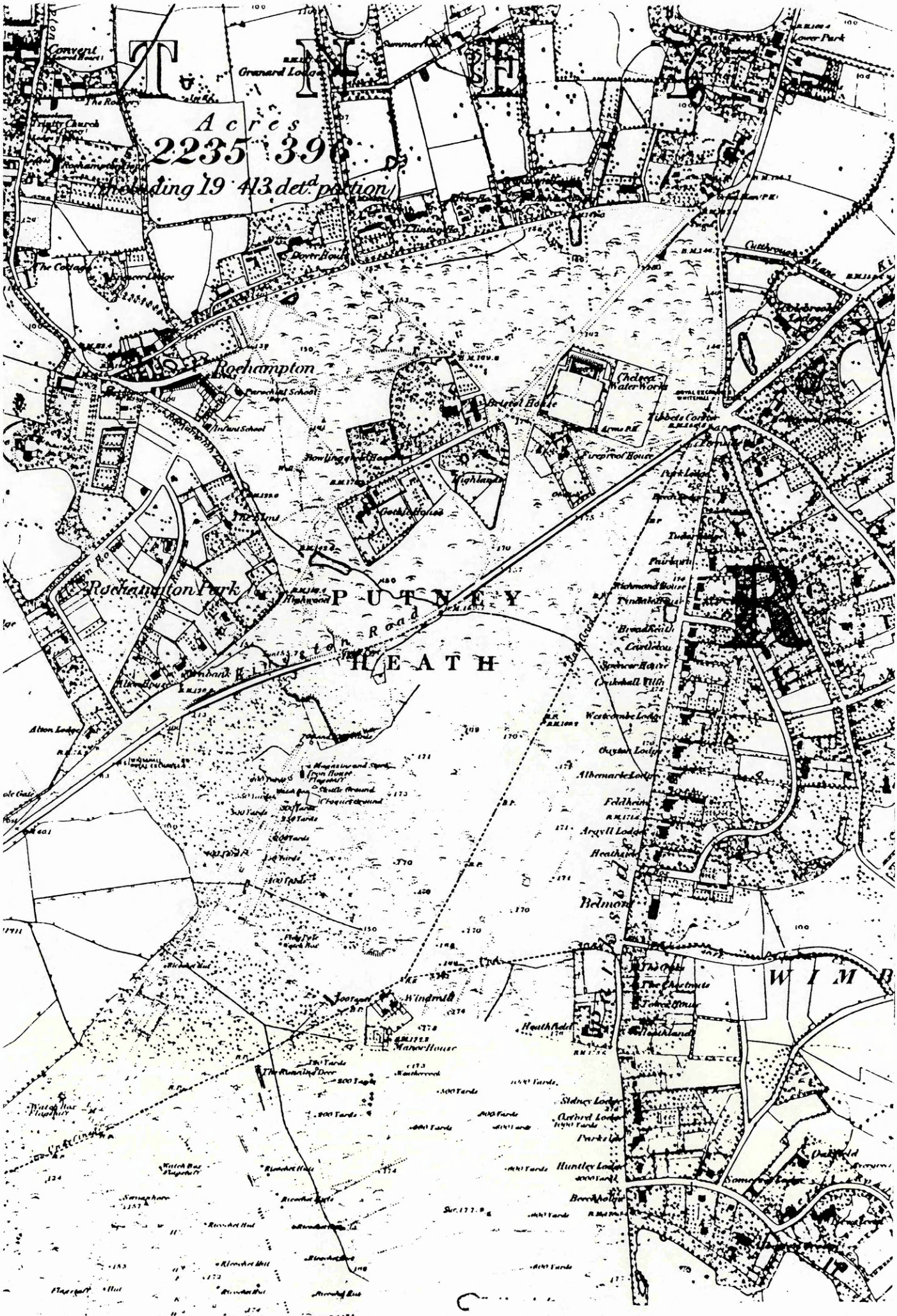
Source:- Census 1871 - Enumerator's Books.
on microfilm - Battersea Local History Library.

Although Broughton Street was close to the railway stations in Battersea Park Road, only four occupants worked as clerks and six as public servants; but there were 35 people engaged in manufacturing, some at least working in the nearby Longhedge Works of the L.C.D.R. There were no less than 31 persons in the building trades living in Broughton Street in 1871, presumably working on the Park Town and neighbouring building projects. The population of the street was essentially a migrant one, but most of the household heads seem to have moved only a short distance, 26 of them from London and a further 21 from south-east England. There seems to have been two main reasons why Park Town did not live up to the expectations of its founder. First the railways deprived most of the estate of the advantage of proximity to Battersea Park, and the viaducts in particular brought noise and pollution uncomfortably close. Secondly, the establishment of Longhedge Locomotive works on the eastern side of Park Town added an element of industry unwelcome to potential middle-class settlers in the suburbs. These disadvantages, together with the flat and treeless nature of the

estate made Park Town unattractive when more salubrious estates were now becoming available in the southern parts of Battersea, Wandsworth and Putney.

The most salubrious estate in the study area at this date was Wimbledon Park. The previous chapter described the circumstances under which J.A. Beaumont bought the land from Earl Spencer in 1845, with the intention of developing it for building. The property was divided roughly into two parts by a new road, Wimbledon Park Road, which following an old footpath, linked Wandsworth directly with Wimbledon village. To the north and west of this highway roads were laid out between 1854 and 1862, sinuous in form, following the contours of the high ground which ran up to Putney Heath.[107] Land on this part was offered for sale in freehold plots; in June 1856 an advertisement in 'The Times' offered plots of from 1½ to 4 acres, suitable for the erection of villas.[108] By 1863 the side of the park which faced Putney Heath, now called 'Parkside', was lined with substantial houses standing in their own grounds, such as 'Castleton' which had eight bedrooms and accommodation for four servants living-in,[109] and 'Hollywood House' at the junction of 'Parkside' and 'WestHill', which boasted thirteen bedrooms.[110]

Even the most accessible parts of Wimbledon Park were over half a mile from the nearest railway stations, either 'Putney' on the Richmond line, or 'Wimbledon' on the L.S.W.R. main line. But persons rich enough to buy houses on the estate could afford to ride to town in their own carriages. The estate was successful because of its closeness to Putney Heath, and because of its altitude. The steep, well-wooded slopes lifted the villas above the smoke from the factories of Wandsworth, which was only a problem when the wind blew from the north-east. That part of Wimbledon


Acres
2235 396
(Including 19 413 det.d portion)
Rochampton
Rochampton Park
PUTNEY
HEATH
Roehampton Lane
Upper Richmond Road
Putney Heath
Belmont
WIMBLEDON COMMON
WIMBLEDON PARK &
ROEHAMPTON PARK

Park that lay south and east of Wimbledon Park Road remained undeveloped until after 1900, and formed a buffer zone between the villas on the hill and the industrial landscape of the Wandle valley. In fact the villas remained substantially unchanged until after the Second World War.

The most widespread influence in the development of Battersea, Wandsworth and Putney, between 1851 and 1871 was the work of the freehold land societies. The largest society, the National Freehold Land Society which supported the Liberal Party, was formed in 1849,[111] and acquired its first estate in the study area in May 1853 when it purchased a field on St. Johns Hill Battersea called 'Spanish Close', lying on the boundary between Battersea and Wandsworth, and close to Wandsworth Common.[112] Other estates followed; in October 1854 the National Society bought 14 acres on the east side of Wandsworth Common which was subsequently built up as 'Chatham Road',[113] and in December 1863 and July 1864 the society acquired 23 acres at the extreme southern end of Wandsworth Common.[114] Finally, at the end of the period under review in this chapter the National Society bought twelve acres at the top of East Hill, Wandsworth.[115]

The activities of the National Freehold Land Society in the study area were concentrated on Wandsworth Common and its surroundings, but its rival, the Conservative Freehold Land Society, operated more widely in the three parishes. The Conservative Society bought the Bessborough House estate in Putney in 1861, which they proceeded to develop as Roehampton Park.[116] By 1866 the Conservative Society was developing an estate to the north of Putney station; its main thoroughfare was appropriately named 'Disraeli Road'.[117] Late in 1868 the same society submitted plans for houses on the Bolingbroke Park Estate which lay south of Battersea Rise.[118]

F.M.L. Thompson has commented on the relative uniformity of freehold land society estates in Hampstead,[119] but the situation was rather different in the study area, for freehold land society properties varied widely in quality and clientele over the three parishes. At one extreme was Roehampton Park which consisted of villas opulent enough to rival Wimbledon Park on the other side of Putney Heath, and at the other was Chatham Road which consisted of two-storey terrace houses occupied by labourers and artisans. The way a freehold land society estate was converted from fields to houses may be illustrated by a consideration of the earliest one in Battersea, the National Society's property on St. Johns Hill, called at first the Clapham Station Estate, and later New Wandsworth.

The National Freehold Land Society acquired their New Wandsworth estate in 1853 for £14,750, or £797 per acre.[120] This was considerably more than the L.C.D.R. paid for Longhedge Farm in 1860, (£500 per acre), but less than P.W.R. Flower paid for the remainder of the Longhedge Estate in 1863, (£1,000 per acre). This suggests that land on the high ground of south Battersea had greater value as building land than the low-lying ground in the north of the parish. The society began by laying out the main road of the estate, parallel to St. Johns Hill on the north, and Wandsworth Common to the south; the road was called Park Road, (now Elsynge Road). The land was laid out in 453 lots with an average size of 0.64 of an acre. Prices ranged from £30 to £1,000 per lot, each purchaser being required to buy at least three lots.[121] Progress in covering the land with houses was slow, and by 1871 only 46 houses had been built on Park Road, most of them on the north side of the street. Twenty-seven of these houses were erected between May 1858 and May 1867, by fourteen different building firms;[122] no one builder erecting more than two houses. Today Elsynge Road has the most varied architecture of any street in Battersea,

There are terraces with and without basements, and with two or three stories. There are also some semi-detached houses, and a variety of styles ranging from the classical to the gothic. The heterogeneous nature of the street is reflected in the rateable value of the houses; there were nine rated between £20 and £29, fifteen between £30 and £39, fourteen between £40 and £49, and seven over £50.[123] Only one house contained more than one household, and one was in use as a school. Out of the 44 inhabited houses 39 had servants living in. The following table shows the occupations of the inhabitants and the birthplaces of household heads:-

Table No. 17 - Park road 1871

Occupations	Number	Birthplaces	Number
Agriculture	--	London	21
Mining	--	Battersea	1
Building	7	Southeast Eng.	7
Manufacturing	2	Southern Eng.	2
Transport		Eastern Eng.	4
Warehouses	1	Midlands	--
Sea & Inland Nav.	1	Wales & S.W. Eng.	1
Railways	--	Northern Eng.	1
Roads	--	Ireland	2
Dealing	14	Scotland & O/S	5
Industrial Service		Not Known	1
Clerks	5		
Labourers	--		
Others	--		
Public Service	18		
Domestic Service	33		
Property owners	7		

Source:- Census 1871 - Enumerators' Books.
on microfilm - Battersea Local History Library.

The fourteen persons included in the 'dealing' category include both shopkeepers and merchants, and the eighteen engaged in 'Public service' include three teachers in the small private school in the road. There were thirty-three domestic servants, an average of just over one servant per

house with servants. Nearly all the household heads were new to Battersea but over half of them came from the south-east of England or from London itself.

Park Road was in comfortable walking distance of 'Clapham Junction' station, and amongst its inhabitants were a clerk at the Bank of England, another at the War Office, and a third in the Inland Revenue; all three of them probably travelled to work by train. But most of the occupants could equally well have worked locally. Freehold land societies often quoted the availability of travel facilities in their advertisements as an inducement to buy plots, and in 1854 the National Freehold Land Society used the proximity of 'Clapham Common' station on the L.S.W.R. main line to encourage the buying of land on their Bolingbroke Estate on the eastern side of Wandsworth Common.[124] But at this date only first class season tickets were available at £12 per annum. At this price this facility would be unlikely to attract most of the occupants of freehold land estates in the neighbourhood, and at this date the services offered by the railways were very limited even for those in a position to pay the fare. The New Wandsworth Estate was perhaps the only one in the locallity to be helped in its growth by the existance of railway services to town, and this would only have been true after the opening of 'Clapham Junction' in 1863.

By the end of the building boom of the late 1860s nearly all of Battersea east of the railway lines from Clapham to Victoria was covered with either industrial premises or artisan housing. West of the railways to Victoria and north of the L.S.W.R. Richmond line, houses had linked up all the way to Wandsworth, but with some notable gaps. The building land around Battersea Park was still unbuilt on and the old Latchmoor Common was still used as allotments for the poor of the parish. Even in 1871 it was

possible to walk eastward from the High Street to Battersea Bridge Road over market gardens. Housing in Battersea south of the Richmond line was less continuous and more varied. There were large terrace houses for the middle class on St. Johns Hill and on the National Freehold Land Society's estate at New Wandsworth, but there were also cottages for artisans on the slopes leading down to the factories in York Road. The Park Town Estate was left half finished and only a little work had been done on the small Beaufoy estate next door. South of Lavender Hill the pattern of villas and substantial gardens that had existed for over seventy years was still intact, with the exceptions of the Conservative Land Society's estate in Battersea Rise, and Chatham Road on the National Society's land.

Most of the housebuilding in Wandsworth between 1851 and 1871 had taken place on the high ground of the parish. The large agricultural estates lying on the low ground between the river Wandle and Wandsworth common remained un-built on, but villas had sprung up around the edge of Wandsworth Common, on West Hill, and in Wimbledon Park. Apart from the building of terraces that had taken place to the east of Wandsworth Town, this type of development was restricted to short streets leading off Garratt Lane and a few terraces along the Merton Road. House building in Putney, at least until the late 1860s, was mainly a matter of ribbon development, generally single houses, along the Upper Richmond Road. Large scale estate development began with Roehampton Park in the early 1860s, and by 1871 solid middle class houses were being erected on the Lime Grove Estate at the north end of Putney Hill, and on the Conservative Land Society's property north of Putney station.

The housing boom had come to an end because, by 1871 the supply of new homes exceeded the demand, and all three parishes of the study area had

a considerable number of empty premises in that year. There were 137 uninhabited houses in Putney, or 8.7% of the housing stock, in Wandsworth there were 357 empties, 10.7% of the stock, but by far the greatest number of untenanted properties were to be found in Battersea, 1365 in all, 14.9% of the housing stock.[125] The summaries to the enumerators' books of the census make it possible to go beyond the parish totals to the uneven distribution of empty houses. Generally, the older areas had less empty houses than the new estates. In Battersea village empties accounted for 6.4% of the total, and in New Town, (built-up in the 1820's), 7.1%; but in Park Town empty houses were 18.7% of the total, and in the St. Johns Hill and Wandsworth Common area 20.7%. There seems to have been little movement out of older properties into the new estates which suggests that they relied on newcomers to the district for their tenants. Proximity to a railway station did not give an estate any particular advantage when the general demand had slackened off for in the streets immediately north of Clapham Junction, where building began in the late 1860's, no less than 21.1% of all houses had no tenants.

Similar, but less marked, differences between the proportion of empty to occupied houses may be seen in the older and new parts of Wandsworth and Putney. Only 6.6% of all houses in Wandsworth Town were empty in 1871, but on East Hill the percentage was 10.2%, and on Wandsworth Common 11.1%. Similarly in Putney High Street only 5.8% of all houses were without tenants, but in east Putney, which included the Conservative Land Society's estate in Disraeli Road, the percentage was 13.8%.[126]

House building remained depressed in the early 1870's and according to Parry Lewis the number of empty houses in London as a whole reached a peak in 1876.[127] But only four years later there was a second great boom in

house construction in the capital. The relationship between developments in transport and the course of this second boom, in Battersea, Wandsworth and Putney will be explored in the next chapter.

This chapter began by asking if there was any relationship between the construction of railways and the growth of services on the one hand, and the progress of suburban development on the other, in the years from 1851 to 1871. From a consideration of the evidence presented a number of conclusions emerge. Firstly, the railway lines constructed in this period were built as part of the companies' overall strategy, and not to serve local needs or to anticipate later demand. Stations were opened either when company plans required an interchange point, as in the case of 'Clapham Junction', or when an existing population seemed to promise potential customers; this was the reason for both the L.B.S.C.R. and the L.C.D.R. opening stations in Battersea Park Road. Secondly, there is no evidence that any building estate failed to find a developer because railway communications to town did not exist or were inadequate, or that the pace of building quickened noticeably after the opening of a station.

If the construction of railways had little positive effect on suburban expansion in the study area in this period, there were notable negative consequences. The new lines, when they were built on embankments or viaducts, disrupted property patterns and put up barriers to local road communications; the smoke and noise of the engines added an element of pollution which was most conspicuous in the case of Park Town where the trains running over the viaduct to Victoria passed close to the bedroom windows of what had been built as middle-class terrace houses. But the railways were not the only polluters active at this time; they merely added to the smoke and smell generated by the gasworks, candle factories, and

chemical plants. The new railway lines were less of a deterrent to development where they were placed in cuttings: the cutting of the W.E.C.P.R. certainly damaged Wandsworth Common as an amenity, but it did not discourage the building of relatively high value houses on the fringes of the common.

Perhaps the railways made their most positive contribution to suburban growth, especially in Battersea, as employers of labour, both operating staff, and in the workshops at Nine Elms and Longhedge. The work was comparatively highly paid and secure, and encouraged the inward migration of a population able to afford the more basic types of housing on offer. If work rather than transport drew the working class into Battersea at this time, parts of Wandsworth and Putney were able to attract middle-class migrants without any improvements in travel conditions. This was particularly true of Wimbledon Park and Roehampton Park where the combination of pleasant scenery and the nearness to open space for recreation encouraged the construction of spacious villas in ample grounds.

The railway network in Putney, Battersea, and Wandsworth was now almost complete, only one new line was opened after 1871. The transport developments to be discussed in the next chapter, which covers the years from 1871 to 1891, will include the extension of cheap fares and the introduction of a new form of transport, the horse drawn tram.

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CHAPTER 5

The Coming of the Horse Tramway - 1871 - 1891.

By the year 1871 railway construction in the parishes of Battersea, Wandsworth, and Putney was almost complete; only one line, the route from Wimbledon to Putney, was built in the years between 1871 and 1891. Hitherto access to town had been by way of the southern companies' termini at Victoria, Waterloo, London Bridge, and Ludgate Hill: but the Wimbledon to Putney line gave direct services to the growing London underground system.

Between 1851 and 1871 the railway had become established as the quickest, and from some stations, the cheapest means of getting to central London; but between 1871 and 1891 the railway was challenged in the matter of economy, if not of speed, by the arrival of the horse-drawn tramcar. Road transport, but not at first public transport, was further assisted by the freeing of the Thames bridges from tolls. This led to a change in the orientation of local traffic patterns, from a mainly east-west one from Wandsworth and Battersea to Westminster and the City by way of Lambeth, to a north-south one from Wandsworth into Fulham and from Battersea to Chelsea and Kensington. Another point of contrast between the years before and after 1871 was the greater vociferousness and power of public opinion. The railway promoters of the boom years of the early 1860's had little difficulty in persuading Parliament to grant compulsory powers of purchase, and such opposition as existed was limited to landowners and property developers. But the tramway operators depended on the goodwill of elected local authorities for permission to lay their tracks along the public highways. These authorities, vestries and local boards of works, were in their turn subject to pressure from public

opinion, expressed in meetings and petitions, and reported in the local press which burgeoned in the 1870's and 1880's.

In the years in which the railway network was completed and tramways began to edge into the district, the population continued to increase in spectacular fashion, as it had done in the twenty years before 1871. The total number of inhabitants of the three parishes had risen by nearly 60,000 between 1851 and 1871, but the total population grew by over 97,000 in the next twenty years. But in percentage terms the growth in population was slowing down; it had grown by 222% from 1851 to 1871, but by only 158% from 1871 to 1891. This growth in the total population was paralleled by a similar increase in the total housing stock; 9843 new houses had been completed in three parishes between 1851 and 1871, but 17977 new houses were built from 1871 to 1891. Just as the years from 1851 to 1871 had included the first housing boom of the second half of the nineteenth century, which reached its peak in the late 1860's, so the years from 1871 to 1891 spanned the second great boom in house construction which in London reached it highest point in 1879 and 1880.

The Wimbledon to Putney railway was the result of the combination of two schemes, the London, Kingston, and Guildford Railway, authorised in August 1881,[1] and the Wimbledon and West Metropolitan Railway which received its Act of Parliament a year later.[2] That section of the line from Putney Heath to Kingston was abandoned in June 1886,[3] and the line from the L.S.W.R. at Wimbledon to the District Railway station at Putney Bridge, on the north bank of the Thames was finally opened in June 1889.

The two parent schemes of the Wimbledon and Putney Railway were very different in character; the London & Kingston Railway arose out of old-fashioned railway politics whereas the Wimbledon and West Metropolitan Railway was a true estate line, like the later Bexleyheath Railway. The London and Kingston Railway was the Metropolitan District Railway's answer to the Metropolitan Railway's push into rural Middlesex. In the year 1880, when the Metropolitan reached Harrow, the District arrived on the north bank of the Thames downstream from Putney Bridge.[4] James Staats Forbes, Chairman of the District as well as of the London Chatham & Dover, saw the extension over the Thames and into Surrey as a means of recovering the cost of laying tracks in Westminster and the City,[5] and the company was attracted to the area south-west of Putney as far as Kingston, which was largely undeveloped and devoid of railways. Kingston Corporation strongly supported the District's London, Kingston and Guildford bill, and were given the right to appoint a director to the board.[6]

Unlike the Kingston and London scheme, the Wimbledon and West Metropolitan was a true local railway; J.A. Beaumont, who had bought Wimbledon Park from Lord Spencer in 1846, and who had been slowly developing the estate for villa housing ever since, agreed to pay up to £2,000 of the railway's parliamentary expenses and to sell land to the railway for only £500 per acre. Counsel for the South-Western described the Wimbledon and West Metropolitan bill thus:-

> It might almost be called a Beaumont estate bill and not a railway bill.[7]

This was a fair description for half of the length of the railway passed through Beaumont's property and his surveyor claimed that the railway would raise the value of the land in Wimbledon Park from £1,000 to £2,000 per acre.[8]

Both the Kingston and London and the Wimbledon and West Metropolitan bills had their supporters and their opponents. The London & South-western Railway was especially hostile to the Kingston and London line which the board saw as a serious threat to the company's supremacy in west Surrey, but even before the bill became an Act of Parliament the South-western had reached an understanding with the promoters whereby they would build a new route from Kingston to Guildford and the promoters would construct the line from Putney to Kingston; the line would be operated jointly by the Metropolitan District and the South-western Railways.[9] The District, like J.S. Forbes' other railway the L.C.D.R., was always chronically short of funds, and it was unable to raise its share of the capital needed to construct the line from Putney to Kingston, so in 1886 all powers were passed to the L.S.W.R. The company formed to build the Wimbledon and West Metropolitan line was also bankrupt and no work had yet been carried out, so the L.S.W.R. took over this line also. The South-western abandoned the route from Putney Heath to Kingston, and concentrated on opening a line from their own main line at Wimbledon to a junction with the District at Putney Bridge.[10]

A total of 360 local owners and residents petitioned against the Kingston and London bill, most of them from the Lime Grove estate on the east side of Putney Hill, built up from the 1860s. Their main objections were that the railway would damage their amenities and reduce the value of their property.[11] Much local hostility to the Kingston and London bill arose out of fears of what the railway might do to Putney Heath and Wimbledon Common; by 1880 common land was a valuable amenity, and had many champions to come to its defence. The conservators of Wimbledon Common naturally petitioned against the bill, and to counter their opposition the promoters agreed to construct the line from Tibbet's Corner, at the top of West Hill where the main road from London to Kingston entered Putney Heath, to Putney Vale, in a tunnel

rather than a cutting.[12] Some people opposed a railway across the common, not because it would damage the amenities, but because it would make them more accessible, as the following exchange between J.L. Pierce, a resident in Carlton Road, and the committee shows:-

> Do I understand that your ground of objection was that it (the railway), would bring the working classes? - No I do not say that, but I do not think there is any necessity for improved access for the working classes, and if they opened stations on the Common that might even be a nuisance.[13]

But the possibility of improved access to open spaces which upset the middle class residents was of course welcomed by the 'working classes' themselves: the trades unionists and workingmen's clubs of Wimbledon sent a petition in favour of the bill to the President of the Board of Trade.[14]

Both the Kingston and London and the Wimbledon and West Metropolitan bills received support from local landowners; the owner of Wimbledon Park, J.A. Beaumont, who after all had promoted the Wimbledon line, and also the Duke of Cambridge, who had encouraged the backers of the Kingston line to lay their tracks across his estate at Combe, were favourable.[15] The line to Wimbledon was also looked on with favour by some, but not all, of the residents and developers of Wimbledon Park; Theophilus Allen, who was building houses on Merton Road, claimed that he could not let them because the nearest station, 'Wandsworth' on the L.S.W.R. Richmond line was, at two miles' distance, too far away for commuters to town.[16]

The line from Wimbledon to Putney as finally built had a much smaller impact on the neighbourhood than would have been the case if the original proposals had been carried out in full. Nevertheless, the construction of the

line resulted in the demolition of 199 houses occupied by 1004 'persons of the labouring classes.'[17] These demolitions, which were largely confined to the area between the Upper Richmond Road and the Thames, were very small in number when compared with the 20,000 people displaced to make way for St. Pancras station,[18] but they affected a considerable proportion of the population of Putney which in 1881 was only just over 13,000. The remainder of the line to Wimbledon resulted in no such demolitions and the Act authorising the construction was deliberately framed so as to enhance the attractions of the Wimbledon Park Estate. Stations and bridges were to be of an ornamental character and to the satisfaction of the owner of Wimbledon Park, and at least three in every five trains were to stop at the two stations to be opened on the estate.[19]

The railway as actually built caused minimal damage to building estates. The line passed through the middle of Wimbledon Park but well away from the villas already occupying the high ground, and the station at 'Southfields' was well placed to encourage house development on the low-lying, eastern part of the estate. North of Wimbledon Park the railway followed the border dividing Wandsworth from Putney, and the property boundary between the 'Clock House' and the 'Lime Grove' estates. The railway made its greatest visual effect north of the Upper Richmond Road where the tracks were laid on a viaduct and where there were spur lines to the L.S.W.R. Richmond line.

The Wimbledon and Putney Railway not only opened up a part of the study area not previously accessible by rail, it provided a direct route into the growing underground system of London. But a consideration of the train services offered by this new line, and by the existing railways, at the end of

the 1880s is best undertaken as part of a review of all means of transport, including the newcomer to the district in this period, the horse tram.

Apart from the unsuccessful lines promoted by G.F. Train in the 1860s, the true development of the tramway in London began with the Tramway Act of 1870 which laid down that a tramway could be built under the authority of the Board of Trade alone, provided that the Board's order was later confirmed by Parliament. The local authorities, in 1870 the vestries and district boards of works, could compulsorily purchase the tramway after twenty-one years.[20] This, and the form of traction, was the main difference between the railway and the tramway; the trackbed of the railway was acquired by compulsory purchase of private land, and the railway company retained the freehold of its route, but the tramway, laid by leave of the local authority on the public highway, was liable to be taken over after only twenty-one years. By 1875 tramways had been laid to Stamford Hill and Highgate in the north, to Greenwich in the south-east, and to Stratford in east London. But the tram was excluded from the West End and the City, and little seen in south-west London, reaching only to Clapham.[21]

A tram service across Battersea, Wandsworth and Putney was mooted as early as 1871 when a promoter proposed to lay a line from Vauxhall to Kingston; but as this tramway would have been twelve miles long, and would have had to cross two substantial hills, it was hardly a serious proposition for horse traction.[22] Six years later a company called the Wandsworth Tramway Company proposed to lay a line from Vauxhall to Clapham Junction by way of Wandsworth Road and Lavender Hill.[23] Although this plan came to nothing, in 1878 no less than four companies deposited plans for tramways in Battersea and Wandsworth. The roads that they chose to operate along were common to all four schemes; from Vauxhall to Wandsworth by way of Nine Elms Lane, Battersea

Park Road, and York Road, and from Vauxhall to Wandsworth along Wandsworth Road, Lavender Hill, St. Johns Hill, and East Hill. There were also to be cross routes to Battersea and Chelsea Bridges.[24] The Wandsworth District Board of Works approved the proposals of only one company, the South London Tramway Co., and only part of their proposed lines, the route along York Road and Battersea Park Road to Nine Elms.[25] In 1879 the South London Co., submitted plans for those lines left out of the earlier Act, and this time they were more successful because all their lines in Battersea were sanctioned by Parliament in the South London (Extensions) Act of 1880.[26] Later in the same year, emboldened by their earlier success, the company submitted plans for tramways outside Battersea, along the Upper Richmond Road from Wandsworth High Street to Roehampton Lane, and down the length of Putney High Street from the Upper Richmond Road to Putney Bridge.[27] The company also proposed to lay tramlines from Vauxhall to Westminster Bridge and Southwark Street, for London Bridge, and these latter lines were the only ones approved by Parliament in 1881. In 1882 the South London Co., asked for powers to build a linking tramway from Clapham across the Common and down Cedars Road to the lines already sanctioned in Wandsworth Road.[28] This plan also failed to win the approval of the Wandsworth Board of Works, and Cedars Road had to wait until 1910 for its trams.[29]

The actual construction of the tramways was a protracted business; the line along Battersea Park Road was opened on New Year's day 1881, and that down Falcon Lane three months later. Trams were running down Queens Road to Chelsea Bridge by the end of the year, and from East Hill Wandsworth to 'Wandsworth Road' station on the L.C.D.R. by June 1882. But through services from Wandsworth to Westminster Bridge and Southwark Street, by the lower route

along York Road and Battersea Park Road, or along the high level route on St. Johns Hill, Lavender Hill and Wandsworth Road, were not available until October 1883.[30]

Proposals to lay tramways through the streets of Battersea, Wandsworth and Putney provoked both enthusiastic support and violent opposition. Local opinion was expressed through public meetings and petitions. The tramway proprietors were particularly active in 1878-79 in organising meetings and petitions, and the South London Company was able to obtain 2561 signatures in favour of their 1878 proposals.[31] In 1881 the same company was able to muster no less than 101,491 signatures in favour of extending their lines to Westminster Bridge and Southwark Street.[32] Meetings were also organised by the opponents of tramways; one such gathering took place in Putney in December 1880 when a motion against trams was proposed by a Dr. Hooper and supported by Dr. Longstaff, both residents on the West Hill estate.[33]

The whole purpose of these meetings and petitions was to put pressure on the authority who had the last word in determining whether the promoters gained the powers they required, in the case of the study area, the Wandsworth District Board of Works. The board in its turn relied on the recommendations of its parochial committees who could express themselves very strongly on the subject of trams. In January 1880 the Putney local committee advised that:-

> The Board offer the most strenuous opposition to the extension of tramways into the parish, the roads being entirely unsuited to such traffic, and the requirements of Putney being fully met by the existing railway and omnibus accommodation.[34]

These were almost the same sentiments as expressed by the Putney vestry nearly forty years earlier when it was proposed to build the Richmond Railway through

the parish! The decisions of both the local committees and the board itself are presented in the board minutes as unanimous; on only one occasion was a poll called for, this was on an amendment which was designed to prevent the board from deleting the proposed tramway along Lavender Hill from its agreement with the South London Co.[35] The result of the poll showed that the board was divided largely on geographic lines; those in favour of trams down Lavender Hill included six members from Clapham and one from Wandsworth, those against included seven members from Battersea, five from Wandsworth, and only one from Clapham.

In general, attitudes to the coming of the trams were not governed by party politics, or based on either class or occupation. Individual responses to tramway projects seem based on the ideas held on the nature of the locality. By the 1880s Battersea was recognised as a working-class suburb, and local opinion was largely favourable to trams; indeed, Mr. Tully, described in the directories as a gentleman of Queen's Square, led local agitation in their favour.[36] But the rest of the area governed by the Wandsworth Board of Works, Clapham, Putney, Streatham, and Wandsworth itself, were still considered as a middle-class preserve, and the arrival of trams was opposed as likely to reduce the value of property, as the Wandsworth local committee commented in December 1878:-

> The extension of tramways would so alter the character of the neighbourhood as to render it no longer a pleasant place of suburban residence.[37]

By the end of 1883 the first phase of tramway construction, that initiated by private enterprise was over as far as the study area was concerned. There were two major routes to London, one ran along the lower route, from North Street Wandsworth by way of York Road, Battersea Park Road,

and Nine Elms Lane to Vauxhall, thence to either Westminster Bridge or to the Hop Exchange in Southwark Street, (for London Bridge). The other line ran over the upper road from East Hill Wandsworth along St. John's Hill, Lavender Hill, and Wandsworth Road to Vauxhall and eventually to the Hop Exchange and Westminster Bridge. There were also two cross routes, from Chelsea Bridge along Queens Road to Lavender Hill, and along Falcon Lane. The trams using the second cross route began their journeys at Chelsea Bridge and ran by way of Battersea Park Road and Falcon Lane to Clapham Junction.

Those parts of the district served by trams had two things in common. Firstly, they were already well stocked with houses, there was no question of a private tramway starting a service in advance of demand in the hope that it would encourage people to eventually move in. Secondly, the area with tram routes were almost entirely working class. The lower route brought cheap travel to the workers in the factories of Nine Elms and York Road, and to the new tenants of the working-class estates that had recently been built close to Battersea High Street and Falcon Lane. It is true that the trams that ran from East Hill along Lavender Hill passed close to the middle-class houses of New Wandsworth, but they passed equally close to the Shaftesbury Park Estate of the Artizans and Labourers' Dwellings Company, (see below). The inhabitants of Battersea, Wandsworth and Putney in 1881 could choose to travel to town by three or four different modes of transport, railway, tramway, horse omnibus or river steamer. But the frequency of service offered and the cost of travel, varied considerably from one part of the district to another.

By 1891 the railway network in the study area had reached its final form, all the stations open today were in service by that year. Four new stations had been opened since 1871: two of these 'East Putney' and 'Southfields', were on the Wimbledon to Putney line. The other two new

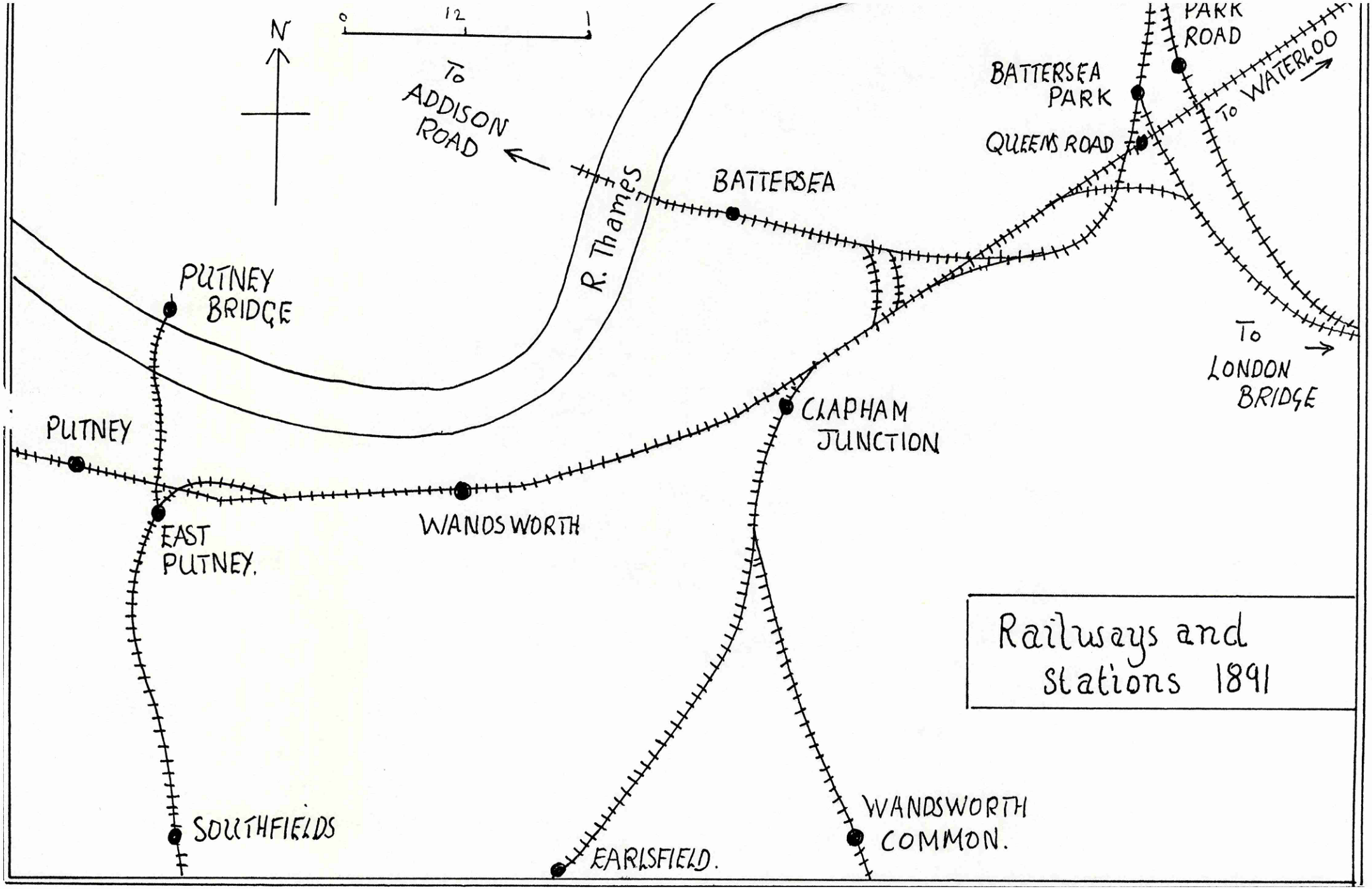
stations were both opened by the L.S.W.R. 'Queen's Road' which came into service in November 1877,[38] gave the South-western, like the Brighton and Chathem Companies, a station close to Battersea Park. The fourth station, 'Earlsfield and Summerstown', was on the L.S.W.R. main line, at the point where it crossed Garratt Lane. Its story shows that railway companies were seldom prepared to give a service in advance of demand. In 1878 a meeting of residents led by the vicar of Summerstown voted to present a memorial to the L.S.W.R. requesting a railway station in Garratt Lane.[39] The L.S.W.R. failed to respond to the memorial, but in June 1883 auctioneers trying to sell the Wimbledon Park estate offered the prospect of a station to be opened in Garratt Lane as an inducement to builders.[40] 'Earlsfield' station finally became available to travellers in April 1884, by which date building was well under way on both sides of the L.S.W.R. line in Wandsworth.[41]

The train services available from these stations are set out in the following table, with those current in 1871 for comparison:-

Table 1. Weekday Train Services from stations in Battersea, Wandsworth & Putney to London - 1871 & 1891

Local Station	Terminus	Company	1871		1891	
			Total	Before 9 am	Total	Before 9 am
Wandsworth	Waterloo	LSWR	35	5	61	11
Putney	Waterloo	LSWR	41	6	69	13
Clapham Junction	Waterloo	LSWR	77	9	214	36
Clapham Junction	Victoria	LBSCR	78	8	172	32
Clapham Junction	London Bridge	LBSCR	8	3	38	9
Clapham Junction	Ludgate Hill	LCDR	9	1	12	1
Clapham Junction	Addison Rd.	WLER	--	--	39	6
Clapham Junction	Euston	WLER	--	--	5	--
York Road	Victoria	LBSCR	95	12	141	28
York Road	London Bridge	LBSCR	22	5	103	17
Battersea Park Road	Victoria	LCDR	71	9	48	16
Battersea Park Road	Ludgate Hill	LCDR	66	14	57	12
Wandsworth Common	Victoria	LBSCR	55	6	80	13
Wandsworth Common	London Bridge	LBSCR	6	1	45	11
Wandsworth Common	Addison Road	WLER	--	--	8	--
Wandsworth Common	Euston	WLER	--	--	5	--
Battersea	Victoria	WLER	41	2	9	2
Battersea	London Bridge	WLER	--	--	8	3
Battersea	Waterloo	LSWR	14	2	15	2
Battersea	Ludgate Hill	LCDR	13	2	13	4
Battersea	Euston	WLER	--	--	6	2
Battersea	Addison Rd.	WLER	--	--	53	6
Queens Road	Waterloo	LSWR	--	--	71	15
Queens Road	Euston	WLER	--	--	7	1
Earlsfield	Waterloo	LSWR	--	--	41	10
East Putney	Waterloo	LSWR	--	--	11	2
East Putney	Whitechapel	Dist.	--	--	32	4
Southfields	Waterloo	LSWR	--	--	11	2
Southfields	Whitechapel	Dist.	--	--	32	4

Source:- Bradshaw's Railway Guide - June 1871 and June 1891.


N
0
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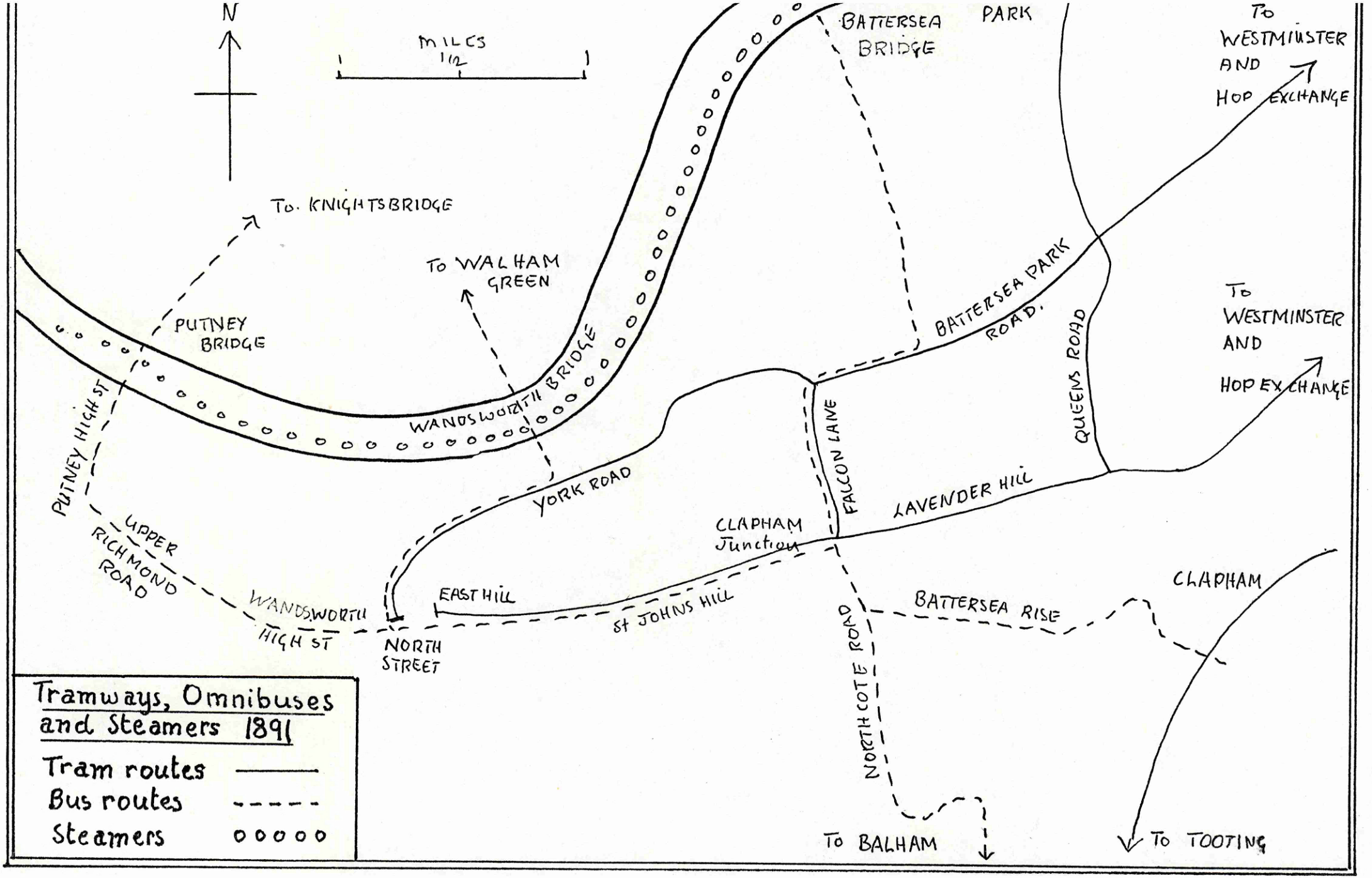
1
To ADDISON ROAD
R. Thames
BATTERSEA
PARK ROAD
BATTERSEA PARK
To WATERLOO
QUEENS ROAD
PUTNEY BRIDGE
To LONDON BRIDGE
PUTNEY
CLAPHAM JUNCTION
WANDSWORTH
EAST PUTNEY.
SOUTHFIELDS
EARLSFIELD.
WANDSWORTH COMMON.
Railways and Stations 1891

The most striking feature of these figures is the general growth in services since 1871: there were over twice as many trains to London from stations in Battersea, Wandsworth and Putney in 1891 as there had been in 1871. This increase in the number of trains is most noticeable at 'Clapham Junction'; in 1891 there were three times as many trains to 'Waterloo' and over twice as many to 'Victoria', as there had been twenty years earlier. There was a comparable expansion of services on the South London line between 'Victoria' and 'London Bridge'; in 1871 there had been 22 trains a day from 'York Road' to 'London Bridge', but by 1891 the total had risen to 103. Only the services operated by the L.C.D.R. failed to share in this growth; perhaps because the level of service offered when the Metropolitan Extensions were first opened was too ambitious for the available traffic, or maybe due to the parlous state of the company's finances and the growing competition of the trams. The increase in the overall number of trains to London was paralleled by a similar increase in the early morning services, but as had been the case in 1871, the best commuter services to town were those from areas already built-up such as around 'York Road' and 'Clapham Junction'. There were as yet only a few trains on the new Wimbledon to Putney line. By 1891 the railways were being seriously challenged as a mass transport system by other forms of travel, especially the horse trams. Table No. 2 shows tram, omnibus and steamer services in 1895:-

Table 2. Road and River Transport in 1895.

Mode	Route	Time of complete Journey	Service Interval
Tram	North St. Wandsworth - York Rd Battersea Park Rd - Vauxhall - Westminster	51 minutes	5 minutes
Tram	North St. Wandsworth - York Rd Battersea Park Rd. - Vauxhall - Borough	1 hour 6 min.	5 minutes
Tram	East Hill Wandsworth - Lavender Hill - Vauxhall Westminster	55 minutes	5 minutes
Tram	East Hill Wandsworth - Lavender Hill - Vauxhall Borough	1 hour 8 min.	5 minutes
Tram	Chelsea Br. - Battersea Park Rd. - Falcon Lane Clapham Junction	14 minutes	10 minutes
Tram	Chelsea Br. - Queens Rd Lavender Hill	11 minutes	10 minutes
Omnibus	Clapham Junction - Battersea Bridge - Sloane Square - Knightsbridge	39 minutes	10-12 mins.
Omnibus	Putney High St. - Fulham Knightsbridge - Liverpool St.	1 hour 34 min.	4 minutes
Omnibus	Knightsbridge - Chelsea Br. (Tram Connection)	16 minutes	5-10 mins.
Omnibus	Victoria - Chelsea Br. (Tram Connection)	10 minutes	5-10 mins.
Omnibus	Clapham - Battersea Rise Wandsworth - Putney	50 minutes	20 mins.
Omnibus	Clapham Junction - Northcote Rd. - Nightingale Lane - Balham	15 minutes	--
Omnibus	Walham Green - Wandsworth Bridge - York Rd. Wandsworth	13 minutes	16 minutes
Steamer	Battersea - Battersea Park Nine Elms - London Br.	52 minutes	10 minutes

Source:- L.C.C. - Report of Locomotice Service - 31st May 1895.


N
MILES
1/2
BATTERSEA BRIDGE
BATTERSEA PARK
To WESTMINSTER AND HOP EXCHANGE
To. KNIGHTSBRIDGE
TO WALHAM GREEN
PUTNEY BRIDGE
WANDSWORTH BRIDGE
BATTERSEA PARK ROAD.
QUEENS ROAD
To WESTMINSTER AND HOP EXCHANGE
PUTNEY HIGH ST
YORK ROAD
FALCON LANE
LAVENDER HILL
UPPER RICHMOND ROAD
CLAPHAM Junction
WANDSWORTH HIGH ST
EAST HILL
NORTH STREET
St JOHNS HILL
BATTERSEA RISE
CLAPHAM
NORTH COTE ROAD
TO BALHAM
TO TOOTING
Tramways, Omnibuses and Steamers 1891
Tram routes
Bus routes
Steamers

The trams were most frequent along the lower route, down Battersea Park Road, with a five minute interval between trams on both the Westminster and Hop Exchange services. But of course the horse tram was slow, it took one hour six minutes to go all the way from North Street to the Hop Exchange.

Horse buses also operated in the area but there was little competition between them and the trams, because they served distinct parts of the district, and some buses, the ones that ran from Chelsea Bridge to Victoria and Knightsbridge, were operated by the South London Tramway Co. as feeders to its trams. Some bus services were very frequent, there was a four minute interval on the line from Putney to the City, but the buses were generally late starters; the first one on the route from Balham to Clapham Junction, the only means of road transport in the extreme south of Battersea, did not begin its journeys until 8 am. It was still possible in 1895 to go to town by river steamer from the piers between Battersea Square and London Bridge, but services were restricted to daylight with a maximum availability of twelve hours. In 1880 the London Steamboat Co. had instituted a through service from Chelsea to Woolwich with a single fare of 6d. for the whole journey. But the company went into liquidation in 1884, and although it was taken over by the Royal Thames Steamboat Co., traffic did not improve, and the winter services were progressively withdrawn in the 1880s. The Royal Thames Co. was itself in difficulties by 1886, and the Chelsea to Woolwich service was withdrawn altogether in 1887.[42]

If people were to travel to work it was important not only that there should be services to town at the right time, but also that the cost of travel should be within reach. The following table shows the single fare to London by railway, tram, omnibus and steamer:-

Table 3. Ordinary Single Fares (Railway third class) 1891 & 1895.

Mode.	Journey From	To	Fare
Railway	Wandsworth	Waterloo	3d.
	Putney	Waterloo	5d.
	York Road	Victoria	1d.
	York Road	London Bridge	8d.
	Clapham Junction	Waterloo	3d.
	Clapham Junction	Victoria	2½d.
	Clapham Junction	London Bridge	8d.
	Clapham Junction	Addison Road	4d.
	Wandsworth Common	London Bridge	8d.
	Wandsworth Common	Victoria	4d.
	Wandsworth Common	Addison Road	5d.
	Battersea	Addison Road	3d.
	Queens Road	Waterloo	2d.
	East Putney	Waterloo	5d.
	Southfields	Waterloo	6d.
Tram	North St.	Westminster Br.	3d.
	North St.	Borough	3d.
	East Hill	Westminster Br.	3d.
	East Hill	Borough	3d.
	Chelsea Br.	Clapham Junc.	1d.
	Chelsea Br.	Lavender Hill	1d.
Omnibus	Clapham Junction	Knightsbridge	3d.
	Putney	Liverpool St.	6d.
	Knightsbridge	Chelsea Br.	1d.
	Victoria	Chelsea Br.	1d
	Clapham	Putney	4d.
	Clapham Junction	Balham	2d.
	Walham Green	Wandsworth	1d.
Steamer	Battersea	London Br.	3d.

Sources: a) Bradshaw's Railway Guide June 1891
b) L.C.C. Report of Locomotive Service 31st May 1895

There was a remarkable stability in the cost of travel by train over the twenty years from 1871 to 1891, even a reduction in fares from some stations; the fare from 'Clapham Junction' to 'Waterloo' had been reduced from 4d to 3d, and from 'Clapham Junction' to 'Victoria' from 3d to 2½d. The overall stability was probably due to reductions in cost, and to competition from the trams; the rail fare from 'Wandsworth' to 'Waterloo' was 3d but a traveller could also go from North Street to Westminster Bridge for the same sum by

tram. The trams were most competitive on the routes to London Bridge; it was possible to travel from North Street to the Hop Exchange for 3d and from Battersea Park Road to the same destination for 1d; but the train fare from 'York Road' station in Battersea Park Road, to 'London Bridge' over the South London line was 8d. Bus fares were higher than those charged on the trams, the cost of travelling from Putney to the City by bus had remained unchanged at 6d. since 1871.

The fares current in 1891, especially by train and tram, seem eminently reasonable to the modern traveller, but they must be judged in conjunction with the level of wages paid at the time. A survey carried out in 1887 in four selected districts of London showed that in Battersea, 23% of the men questioned earned less than 21/- a week.[43] Thus weekly travel from say 'Queens Road' Battersea to 'Waterloo' costing 2/-, would take about 10% of the wages of 23% of the Battersea workforce. Rents in Battersea too were high when compared with rents in the other three districts sampled in 1887, Hackney, St. George in the East, and Deptford. In Battersea over 50% of the men questioned paid more than 6/- a week in rent, compared with less than 40% in the four districts taken together.[44] No doubt accommodation in the suburbs was better than in the central districts, but the only way workingmen could be enabled to move out of congested inner areas was by the provision of cheap trains so that suburban rent plus the cost of travel was not much higher than rent for inferior quality housing in the centre.

The L.C.D.R. had been required to operate workmen's trains at low fares from the opening of its Metropolitan Extension, and the Cheap Trains Act of 1883 gave the Board of Trade the power to require railway companies to run workmen's trains where a demand already existed.[45] The Board of Trade became subject to considerable lobbying, and the most vocal voice in favour of cheap

trains was the London County Council which had replaced the Metropolitan Board of Works in 1889. The L.C.C. regarded the provision of cheap travel as one way of lessening overcrowding in London. The growth of workmen's trains in the study area between 1871 and 1891 was spectacular. In 1871 there were only five workmen's trains to town in the morning; by 1882, before the passing of the Cheap Trains Act, the total had risen to 21,[46] and by 1892 there were 60.[47] The L.C.C. examined the provision of workmen's trains in South London in 1892, and praised the services provided for workmen by the L.S.W.R. and the L.B.S.C.R. but was very critical of the L.C.D.R; it was the only company to limit the issue of workmen's tickets to bona fide workmen, and it claimed the right to ask applicants to give the name and address of their employers.[48]

Full workmen's services, by railway and by tram, are set out in the next table:-

Table 4 Workmen's Services 1892 and 1895

Mode	Station/Starting Point	Terminus	Total Services (Morning)	Last Morning Service	Fare
Railway	Battersea Park Rd.	Victoria	2	6.29	2d a day
L.B.S.C.R.	Battersea Park Rd.	Ludgate Hill	3	6.08	2d a day
Railway	York Road	London Bridge	6	6.25	4d a day
L.B.S.C.R.	Clapham Junction	London Bridge	1	5.45	4d a day
	Wandsworth Common	London Bridge	1	5.49	4d a day
Railway	Queens Rd.	Waterloo	12	7.45	2½d a day
L.S.W.R.	Clapham Junction	Waterloo	13	7.42	3d a day
	Wandsworth	Waterloo	6	7.25	4d a day
	Putney	Waterloo	6	7.58	2/6d week
	Earlsfield	Waterloo	6	7.58	2/- week
Railway	East Putney	Whitechapel	2	7.45	7d a day
District	Southfields	Whitechapel	2	7.42	7d a day
Trams	North Street	Westminster	2	6.03	2d single
	North Street	Hop Exchange	7	7.15	2d single
	Chelsea Bridge	Lavender Hill	3	7.05	1d single

Sources: a) Railways - L.C.C. - Report of the Public Health and Housing Committee - London Statistics Vol.II 1891-92
b) Trams - L.C.C. Report of Locomotive Service - 31.5.1895

The most frequent services were from stations in the already built-up parts of Battersea. Queens Road had twelve trains to Waterloo in the morning, and Clapham Junction had thirteen. The L.S.W.R. policy of issuing only weekly tickets at 'Putney' and 'Earlsfield' does not suggest that the company wanted to encourage the migration of workingmen to the less developed parts of the study area where a profitable middle-class clientele already existed. Similarly workmen's services on the trams in 1892 were restricted to the lower route from Wandsworth to Westminster Bridge and the Hop Exchange; on this route the trams passed through densely populated territory for most of the way.

One of the consequences of developments in transport between 1871 and 1891 was to provide new links between Battersea, Wandsworth and Putney, and the districts north of the Thames, Fulham and Chelsea. In the case of the railways this was achieved by the Wimbledon and Putney line, and in that of road transport by the construction of new bridges, and the freeing of all bridges from toll. In 1854 only London, Blackfriars and Westminster Bridges were toll free.[49] The Metropolitan Board of Works began a campaign to make the bridges toll free in 1872 and finally succeeded with the Act of 1877 which gave the board powers to buy out the various bridge proprietors.[50] The bridges became toll free in 1878; Putney Bridge was rebuilt by the Board in 1886 and Battersea Bridge in 1890.[51]

In 1871 there were three road bridges over the Thames in the study area. Putney and Battersea Bridges were ramshackle wooden structures dating from the eighteenth century and owned by private companies, but Chelsea Bridge had been opened as recently as 1858 as part of the Battersea Park project. This original trio was joined in 1873 by the Albert Suspension Bridge which ran from the western side of Battersea Park to the Chelsea Embankment, and in the same year by Wandsworth Bridge which joined York Road east of Wandsworth town with Fulham.[52]

By the 1870s there was considerable opposition, particularly in Battersea, to paying to cross the river, and it was held that the ½d toll each way for pedestrians fell especially hard on the working class, and prevented labourers from going home for their dinner.[53] A survey of the number of foot passengers over Battersea, Albert and Chelsea Bridges carried out by Battersea Vestry in May 1876 suggested that labouring men were indeed the biggest users of the bridges for out of a total of 9,214 crossings that day, 2,477 took place between 5 am and 8 am.[54] Robert Hadfield, a Battersea churchwarden, also held the bridge tolls responsible for the low value of housing in Battersea: he claimed that out of 9,939 houses in the parish 8,481 were of £25 rateable value or less:-

> It is a poor man's neighbourhood, - it has become so mainly we think, on account of the toll on Battersea Bridge.[55]

The bridge tolls were also blamed for the slow rate of development on the building lands of the Battersea Park Estate; C.F. Reeks, architect in charge, told the 1876 select committee on toll bridges that only thirteen acres on the west side of the park had been let for building, and that forty three acres remained untaken. Reeks believed that the land between the park and Battersea Park Road would rise in value if the bridges were freed from tolls.[56]

The consequences of the removal of tolls were not those anticipated by the proponents of freeing the bridges. The value of property in Battersea did not rise, in fact clearances in Chelsea in the 1880s resulted in a stream of poor migrants into the parish.[57] Building on the Battersea Park Estate continued slowly over the next twenty years, mainly with houses and flats for the middle class.

Earlier in the nineteenth century these migrants from Chelsea would have come to Battersea in search of work, but by 1891 cheap accommodation was a more

likely attraction. Charles Booth's collaborator Graham Balfour, said of Battersea:

> .... and the inhabitants nearly all go out to earn their living. Some walk to their work, some go by train, and others by the South London Tramways which run down Battersea Park Road and also just outside Battersea down Wandsworth Road. [58]

It is difficult to compare the occupational structure of the study area in 1871 with that which prevailed twenty years later for the census of 1891 gives details of occupation for no smaller unit than the whole of south London. It is therefore necessary to fall back on Booth's survey of London which began with the census data for 1891. Unfortunately the published data for the 1871 census distinguished between those of twenty years and over and those under twenty, but Booth's figures cover the entire occupied population. Therefore only approximate comparisons can be made for certain trades. Table 5 shows the percentage of those over twenty in 1871, and the percentage of the whole occupied population in 1891, engaged in Public and Professional Service, Domestic Service, Transport and Agriculture.

Table 5 Percentage of workers in various occupations
1871 - Over twenty years old.
1891 - Total Population

1. London
2. Wandsworth Registration District.
3. Camberwell Registration District.

	1871			1891		
Occupation	1	2	3	1	2	3
Public & Professional	8.8	8.6	9.4	8.9	10.6	9.0
Domestic Service	18.6	23.1	17.2	5.5	5.2	4.7
Transport	8.3	6.0	6.2	13.7	12.5	10.4
Agriculture	2.1	4.3	3.0	1.3	3.2	1.5

Sources:- PP HC 1873 (872) vol. LXXI 1. Div 1. Table 13.
C. Booth - Life and Labour of the People in London Vol. 5 & Vol. 6 1895

The percentage of public servants had increased since 1871, as had the porportion of the workforce working in transport, due mainly to the introduction of the horse tram. There was a fall in the agricultural workforce in Wandsworth, greater than in London as a whole, because housing development since 1871, had covered much of the farmland with houses. There was also a drop in the percentage of the workforce engaged in domestic service, but not a fall in the total number of servants; they had simply become a less significant part of a vastly increased population.

Tables 6 and 7 show the occupational structure of the Wandsworth Registration District in 1891 compared with that of its neighbours, Chelsea and Lambeth, with other inner suburbs like Bethnal Green, Hackney, Islington and Camberwell, and with the whole L.C.C. area:-

Table 6. Occupations of the Occupied Population in 1891
Total Numbers.

Registration Districts
1. Bethnal Green
2. Hackney
3. Islington
4. Chelsea
5. Camberwell
6. Lambeth
7. Wandsworth
8. London - Total

Occupation	1	2	3	4	5	6	7	8
Agriculture	258	2289	3217	782	3167	4385	8255	43811
Mining	—	—	—	—	—	—	—	—
Building	8801	22882	35941	14949	28947	32103	46103	432905
Manufacturing	63867	68853	91049	17091	64807	64505	64145	1065870
Transport	13212	17756	41001	12572	21817	29274	32651	479636
Warehouses	4586	4950	6881	1522	5083	5285	5322	99913
Sea & Inland	313	536	351	364	816	1228	1854	35397
Railways	1342	3014	9643	2854	3730	5963	10632	82828
Roads	6971	9256	24126	7832	12188	16798	14843	261496
Dealing	15334	36041	36786	11003	31318	36376	31893	527637
Indust. Ser.	9352	28237	28646	4758	31458	31037	36361	441354
Clerks	1590	21071	19257	2697	21576	15998	17617	181589
Labourers	7942	7166	9839	2061	9882	15039	18744	259765
Public & Prof.	3530	17317	24787	8637	19044	23115	27515	310202
Domestic Ser.	4816	8500	12709	7194	9944	13565	13054	198583
Tot. Occupied	119170	201875	274136	76986	210502	234360	260067	3499998

Table 7. Occupations of the Occupied Population in 1891
Percentages

Occupation	1	2	3	4	5	6	7	8
Agriculture	0.2	1.1	1.1	1.0	1.5	1.9	3.2	1.3
Mining	--	--	--	--	--	--	--	--
Building	7.4	11.0	13.1	19.4	13.8	13.7	17.7	12.4
Manufacturing	53.6	34.2	33.2	22.2	30.8	27.5	24.6	30.5
Transport	11.1	8.8	15.0	16.3	10.4	12.5	12.5	13.7
Warehouses	3.8	2.5	2.5	2.0	2.4	2.3	2.0	2.9
Sea & Inland	0.3	0.3	0.1	0.5	0.4	0.5	0.7	1.0
Railways	1.3	1.5	3.5	3.7	1.8	2.5	4.1	2.4
Roads	5.7	4.5	8.9	10.1	5.8	7.2	5.7	7.4
Dealing	12.9	17.9	13.4	14.3	14.9	15.5	12.3	15.1
Industrial Ser.	8.0	14.0	10.4	6.2	14.9	13.2	13.9	12.6
Clerks	1.3	10.5	7.0	3.5	10.2	6.6	6.8	5.2
Labourers	6.7	3.5	3.4	2.7	4.7	6.6	7.1	7.4
Public & Prof.	2.8	8.6	9.0	11.3	9.0	9.9	10.6	8.9
Domestic Ser.	4.0	4.4	4.8	9.3	4.7	5.8	5.2	5.5
Total Occupied	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source:- Chas. Booth - Life and Labour of the People in London vols. VI - VIII (1895)

Wandsworth District still had a larger percentage of its workforce in agriculture than did London as a whole as there was still some undeveloped land in the west of the district. There was also a higher percentage of builders as might be expected in an area where the speculative builder had been especially active in the previous decade; but there were even more builders in Chelsea where clearances were taking place on the Cadogan and other estates. Wandsworth district retained its pre-eminence in transport employment mainly because of the concentration of railway workers in Battersea; there was also a high percentage of clerks, exceeded only by Hackney, and by the clerks' suburb 'par excellance', Camberwell. Public and professional workers were well represented in Wandsworth district because of the villa population of Putney, west Wandsworth and Streatham, but they were even more prominent in Chelsea where they seemed to be pushing out the old working-class inhabitants.

Booth lists the industries of Battersea in 1891 as, railway workshops, candle works, starch works, sugar manufacturers, crucible works and laundries. All these with the exception of the laundries were in existence by 1871. By 1891 the industries of Battersea were penned to their riverside sites by a sea of houses, with little room for expansion. Land was in especially short supply around the Nine Elms works of the L.S.W.R., and in 1891 the company moved the building of carriages to a green field site at Eastleigh in Hampshire.[59]

Given the stagnation in local work opportunities, the facility to travel cheaply to town had become very important in Battersea, and to a lesser degree in Putney and Wandsworth, for although there was little growth in local employment, there had been a massive increase in population since 1871. As in the earlier chapters of this study, the following table sets out the total population of the three parishes of the study area; the remainder of the Wandsworth Registration District, and for Lambeth, Camberwell, Islington, Hampstead and Hammersmith districts also:-

Table 8 Total Population - 1871 - 1881 - 1891

Parish/ Registration District	Population 1871	1881	1891
Battersea	54016	107262	150558
Wandsworth	19783	28044	46717
Putney	9439	13235	17771
Total Study area	83238	148541	215046
Clapham	27347	36380	43698
Streatham/Tooting	14475	25553	48756
Total Wandsworth Reg. Dist.	125060	210474	307500
Lambeth	208332	253699	275202
Camberwell	111306	186593	235344
Islington	213778	282865	319143
Hampstead	32281	45452	68416
Hammersmith	42691	71939	97239

Source:- PP HC 1872 (676.1) Vol. LXVII Div. 1. Table 3.
PP HC 1883 (3563) Vol. LXXIX Div. 1. Table 4.
PP HC 1893-94 (6948.1) Vol. CV Div. 1. Table 2.

Table 9 shows the percentage increase in each decade for the same areas.

Table 9 Percentage increase in Population - 1871 - 1881 - 1891

Parish/ Registration District	Percentage increase 1871-81	1881-91	1871-91
Battersea	98.57	40.36	178.73
Wandsworth	41.56	66.82	136.15
Putney	40.22	34.27	88.27
Total Study area	78.41	44.81	158.35
Clapham	33.03	20.12	50.79
Streatham/Tooting	76.53	90.80	236.83
Total Wandsworth Reg. Dist.	68.27	46.12	145.88
Lambeth	21.78	8.48	32.10
Camberwell	67.64	26.13	111.44
Islington	32.32	12.83	49.29
Hampstead	40.80	50.52	84.64
Hammersmith	68.51	35.17	127.77

Source:- See Table 8.

Between 1871 and 1891 the population of Wandworth Registration District increased by 145%, a greater increase than in any other district on the table, and very close to the 146% rise experienced between 1851 and 1871. But over 182,000 people were added to the population between 1871 and 1891 compared with only 74,000 from 1851 to 1871. All the other districts on the table show a smaller percentage increase from 1871 to 1891 than from 1851 to 1871. The balance of population increase within Wandsworth district had changed since 1871; Battersea, with a rise of over 178% still showed the largest increase within the study area, but this was exceeded by the 236% rise in the population of Streatham and Tooting in the same period.

There were marked differences in the rate of growth of population between 1871 and 1881 and between 1881 and 1891. The population of Battersea doubled from 1871 to 1881 but rose by only 40% in the subsequent decade. Similarly the population of Clapham rose by 33% in the years 1871 to 1881, but by only 20% from 1881 to 1891. On the other hand, Wandsworth increased the number of its

inhabitants by 42% from 1871 to 1881, but by over 67% in the next ten years. In Streatham and Tooting the figures are 77% and 91% respectively. These differences seem to be attributable to the fact that by the 1880's the tide of suburban growth was moving away from the inner parts of the registration district, Battersea and Clapham, to the outskirts, Streatham and Wandsworth, where land for housing was still plentiful. The fact that by the 1880's newcomers to the area were more likely to go to Wandsworth and Streatham than to Battersea and Clapham can be demonstrated by a consideration of the percentage of population increase due to a surplus of inward over outward migration compared with the percentage arising from natural increase.

Table 10 shows the relationship between migration and natural increase in the ten years 1871 to 1881 and 1881 to 1891:-

Table 10. Migration and Natural Increase
A - 1871 to 1881.

Reg. Dist./Parish	Population Increase	Natural Increase	%	Inward Migration	%
Battersea	53246	15520	29.1	37726	70.9
Wandsworth	8221	2485	30.2	5736	69.8
Putney	3796	1526	40.4	2270	59.6
Total Study Area	65263	19531	29.9	45732	70.1
Clapham	9033	4553	50.4	4480	49.6
Streatham/Tooting	11078	2835	26.0	8243	74.0
Total Wandsworth R.D.	85374	26919	31.5	58435	68.5
Hampstead	13171	1626	12.3	11545	89.7
Islington	69107	40161	58.1	28946	41.9
Hammersmith	29248	8802	30.1	20446	69.1
Camberwell	75287	22971	30.5	52316	69.5
Lambeth	45367	32714	72.2	12653	27.8

B - 1881 - 1891

Reg. Dist./Parish	Population Increase	Natural Increase	%	Inward Migration	%
Battersea	43296	25563	59.0	17733	41.0
Wandsworth	18713	5763	30.8	12950	69.2
Putney	4536	1678	37.0	2858	63.0
Total Study area	66545	33004	49.6	33541	50.4
Clapham	7318	5199	71.0	2119	29.0
Streatham/Tooting	23203	6337	27.3	16866	72.7
Total Wandsworth R.D.	97066	44540	45.9	52526	54.1
Hampstead	22964	5378	23.9	17586	76.1
Islington	36278	41828	100.0	(5550)	--
Hamersmith	25300	12919	51.1	12381	48.9
Camberwell	48751	32171	66.0	16580	34.0
Lambeth	21503	36850	100.0	(15347)	--

Sources:- Census Reports - See Table 8.
Annual Reports Registrar-General 1871 - 1890.

From 1871 to 1881 all the registration districts and parishes on the table show a higher percentage of rise in population due to migration than to natural increase, but in the next decade there was a net outward movement from inner districts such as Islington and Lambeth. Between 1871 and 1881 all the parishes in Wandsworth District grew more from inward migration than from natural increase except for Clapham but from 1881 to 1891 both Battersea and Clapham grew more by natural increase than by inward migration. This was despite the concentration of railway workers in Battersea; according to Booth, most railwaymen came from the provinces, moving to London on promotion. He claimed that in 1896, 76% of the railway workforce in London was born outside the Metropolitan area.[60]

Although a higher percentage of the population was born locally in 1891 than in 1871, over 122,000 more people needed housing in the study area in 1891 than did so in 1871. it is now necessary to consider how far house building in the years from 1871 to 1891 was able to meet this need.

Between 1871 and 1891 the housing stock of Battersea, Wandsworth and Putney combined increased by 17,977 houses, or by 125%

Table 11 The Housing Stock 1871 - 1891

I - Inhabited Houses
B - Building
U - Uninhabited Houses

Parish	1871			1881			1891		
Reg. Dist.	I	U	B	I	U	B	I	U	B
Battersea	7914	1385	438	14605	1242	678	20779	713	89
Wandsworth	2964	357	39	4249	416	188	7256	403	110
Putney	1603	153	38	2123	101	101	2967	235	19
Total Study area	12481	1895	515	20977	1759	967	31002	1351	218
Clapham	4334	193	60	5604	216	22	6994	318	75
Streatham/Tooting	2339	249	89	4167	514	473	8135	607	130
Total Wandsworth	19154	2337	664	30748	2489	1462	46131	2276	423
Chelsea	8985	364	69	11091	498	316	12134	546	393
Lambeth	29129	1659	349	35404	4876	482	38556	2165	265
Camberwell	17772	1935	359	27316	3004	758	33849	1942	142
Islington	27079	2414	492	34046	1944	563	37875	1656	237
Hampstead	4348	399	157	5873	484	209	9517	691	161
Hammersmith	6719	874	320	10536	1497	416	14049	1026	99
London	447767	32320	5104	486186	36966	7749	544777	39608	4195

Sources:- PP HC 1872 (676.1) Vol. LXVII Div. 1. Table 3.
PP HC 1883 (3563) Vol. LXXIX Div. 1. Table 4
PP HC 1893-94 (6948.1) Vol. CV Div 1. Table. 2.

Wandsworth Registration District as a whole increased its total of houses by 111%, a greater percentage increase than in any other district with the exception of Hampstead which started from a much lower total in 1871. Increase in the number of houses was least in Lambeth and Islington, both districts that had been subject to migration from inner London since 1800 and earlier. In Camberwell where the percentage increase was 82%, house building reached its 19th century peak in 1878, and although activity recovered in the last decade of the century, it did not produce as many houses as in the first boom of the late 1860s. Hammersmith, a district similar in some respects to Wandsworth, only increased the size of its housing stock by 99% between 1871 and 1891.

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Within the Wandsworth Registration District the largest percentage increase in the total number of houses took place in Streatham and Tooting, 237%, but the parish that added the most actual houses was Battersea where the total stock rose by 12,193 dwellings. The smallest percentage increase occurred in Clapham, 62% a rise similar to that in Camberwell which might be expected in two areas of comparable distance from the centre of London. Fewer houses were built in Putney than in any other parish in the registration district; Putney, like Hampstead, was a district where much of the land was already covered with middle-class villas, and their owners and occupiers, unlike those who inhabited the villas around Clapham and Wandsworth Commons, did not yet feel under pressure to move.

Table 12 shows the increase in the size of the housing stock in each decade from 1871 to 1891:-

Table 12. Increase in the Total Housing Stock (Inhabited & Uninhabited Houses) - 1871 to 1891

Reg.Dist./Parish	1871-81 No.	%	1881-91 No.	%	1871-91 No.	%
Battersea	6548	70	5645	36	12193	131
Wandsworth	1344	40	2994	64	4338	131
Putney	468	27	978	44	1446	82
Total Study area	8360	58	9617	42	17977	125
Clapham	1293	29	1492	26	2785	62
Streatham/Tooting	2063	80	4091	88	6154	237
Tot. Wandsworth R.D.	11716	55	15200	46	26916	111
Chelsea	2240	24	1081	9	3321	36
Lambeth	6492	21	3441	9	9933	32
Camberwell	10613	53	5471	18	16084	82
Islington	6497	22	3541	10	10038	34
Hampstead	4440	58	3042	25	7482	99
London	73065	16	61433	12	134498	30

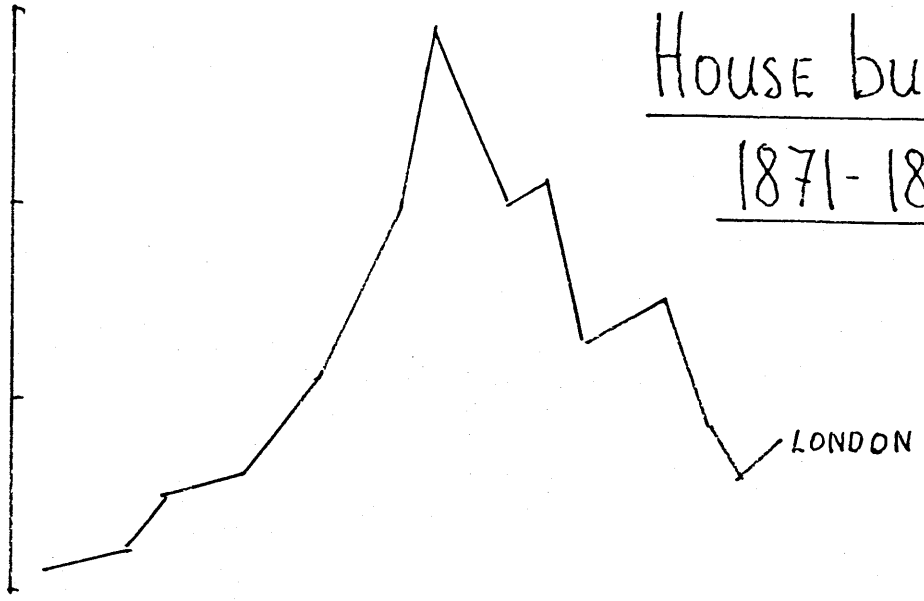
Source:- See Table 11

In those areas closest to central London, where the supply of building land was beginning to dry up in the 1880s, more houses were built from 1871 to 1881 than from 1881 to 1891; this applies to Lambeth, Camberwell, Islington and Hammersmith. In Wandsworth Registration District as a whole more houses were added to the stock between 1881 and 1891 than in the previous decade, but the percentage increase was less. Within the district only Battersea added fewer houses to the total in the years 1881 to 1891 than in the years 1871 to 1881, but the number of houses built in the second decade of this period was still greater than in any other parish in the district, and over a third of the total.

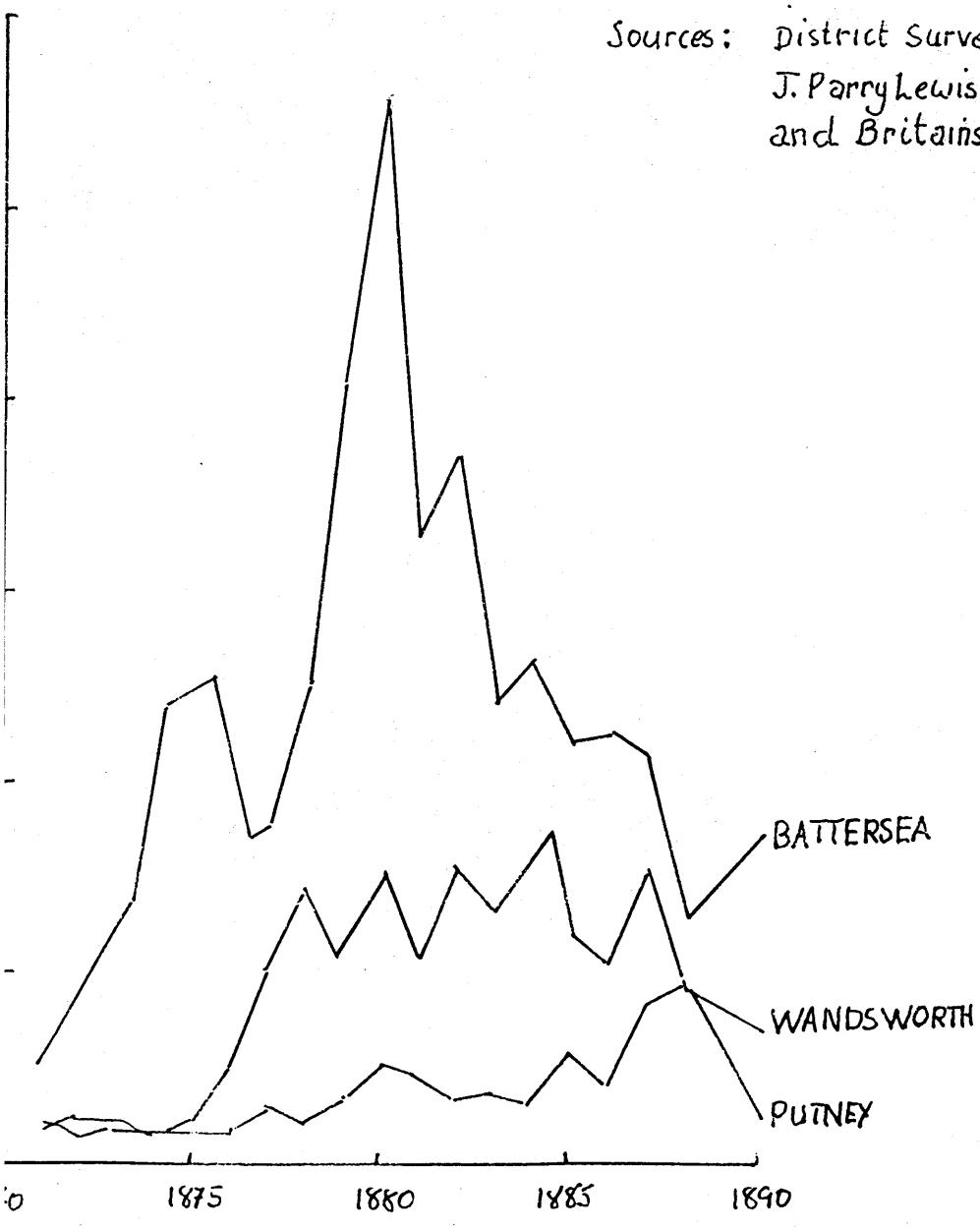
Differences in house construction between one decade and another are only a crude indication, for a fuller consideration of the course of house building in these twenty years it is necessary to examine housing starts in each year. This information for Battersea, Wandsworth and Putney, taken from the District Surveyors' Returns, is set out in Fig.1 alongside Parry Lewis's data for the whole of London. Lewis's curve shows that the twenty years from 1871 to 1891 neatly span the second great housing boom of the nineteenth century which reached its peak in London in 1881.[62] H.H. Gordon, in his discussion of Calvert Spensley's paper on urban housing problems, unequivocally ascribed the boom to the introduction of the horse tramway, and pointed out that the high poin of house building in 1881 happened five years after the initiation of the London tramway network which began in 1876.[63]

When the house graphs for all three parishes are compared with that for the whole of London, Putney with no trams at all until after 1891, had a housing curve most at variance with that for London. In Wandsworth where the trams reached the eastern part of the parish only, housing construction experienced a rather diffuse boom with varying high and low points from 1878 to

House buiding 1871-1890



Sources: District Surveyors returns 1871-1890
J. Parry Lewis - Building cycles and Britains growth 1965 p131.



1887. In Battersea, where the trams made their greatest impact, the house building curve shows the strongest correlation with that for the whole of London. But the true situation was more complicated, as can be seen if north Battersea, (that part of the parish between the river and the main line of the L.S.W.R.), is considered separately from south Battersea, (from the railway to Wandsworth and Clapham Common) figure 2. The curve for north Battersea follows that for London in an exaggerated form, with a very pronounced high point in 1881, falling away sharply thereafter. House building in south Battersea did not reach its highest point until 1882, but maintained a consistently high level of activity until 1887. But there was a subsidiary peak of house building in south Battersea in 1874-75 which was not paralleled in north Battersea, Wandsworth, Putney, or the whole of London. This little local boom was almost entirely due to work on one estate, Shaftesbury Park; indeed the house construction curves may be at least partially explained by reference to a small number of estates. Table 13 shows activity each year from 1871 to 1890 on three estates in Battersea and two in Wandsworth:-

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House building in Battersea 1871-1891

Sources: District Surveyors returns 1871 - 1891.

J. Parry Lewis Building Cycles and Britains growth 1965 p.131.

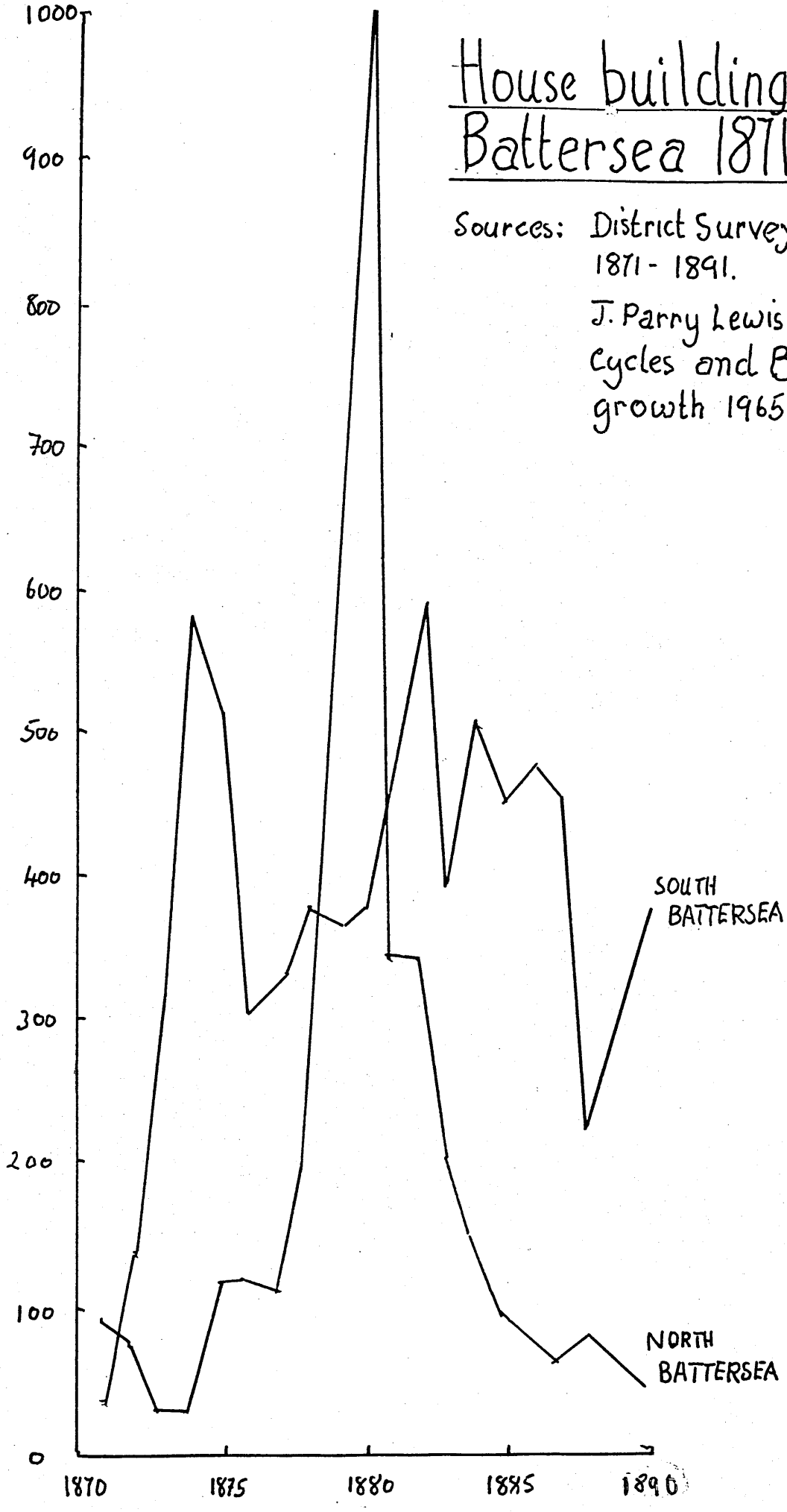


Table 13 House building on five estates in Battersea and Wandsworth with parish totals 1871 - 1890

1. Park Town Estate.
2. Shaftesbury Park Estate.
3. Falcon Park Estate.
4. British Land Co. Estate, West Hill
5. West Hill Park.

Year	1	2	3	Battersea Total	4	5	Wandsworth Total	Putney Total
1871	-	-	-	123	-	2	42	31
1872	-	67	-	216	-	2	21	51
1873	-	189	-	343	-	8	36	50
1874	23	479	-	608	-	-	33	32
1875	24	333	-	632	-	-	55	37
1876	56	83	-	428	-	-	121	38
1877	8	27	-	447	3	10	261	70
1878	-	7	-	633	1	13	357	50
1879	14	49	170	1027	5	46	267	76
1880	24	-	281	1422	1	35	368	123
1881	32	-	5	822	-	19	263	109
1882	9	-	66	935	-	13	381	75
1883	21	-	30	601	-	9	326	81
1884	44	-	4	651	76	14	426	76
1885	16	-	4	551	126	4	292	138
1886	14	-	4	560	42	4	255	104
1887	39	-	-	527	37	4	375	211
1888	10	-	-	313	6	13	215	221
1889				No information				
1890	23	-	-	426	4	13	158	50

Sources:- G.L.C. R.O. District Surveyors' Returns 1871 - 1890.

In this period house building was of two main types, speculative building, including houses constructed on land society land, and houses erected by charitable organisations as a means of alleviating the bad conditions that existed in central London. Of the five estates on Table 13, Park Town and Falcon Park were speculative ventures, and the two West Hill properties were built on land society land. Shaftesbury Park was a charitable project that had as its original object the provision of cottage dwellings for labourers and artizans.

By the 1860s the problem of overcrowding and poor living conditions in towns, especially in London, was causing concern. It was not yet conceivable

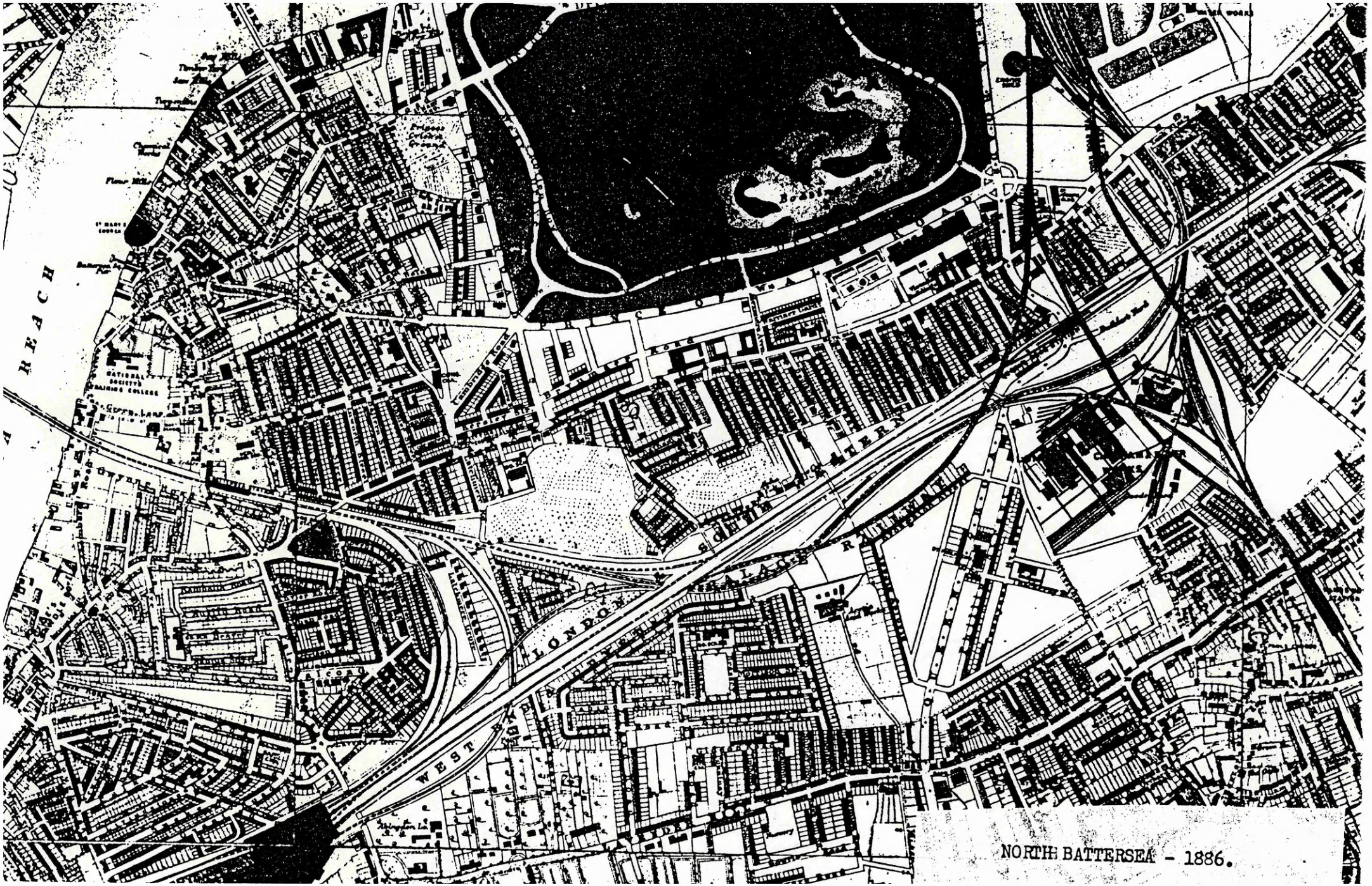
that the state should provide subsidised housing, but the improvement of the living conditions of the poor was seen as a proper outlet for philanthropy particularly if good works could be combined with a reasonable return on capital. Anthony Wohl has said of the housing movement:-

> By holding out the prospect of five percent interest it hoped to appeal to those humanitarians who disapproved of charity, and 'pauperising' the working man.[64]

Most of the charitable housing organisations tried to build in central London, and the high cost of land forced them to erect blocks of model dwellings, but one company, the Artizans, Labourers and General Dwelling Co., attempted to meet the needs of the poor by building cottage style homes in the suburbs.

The Artizans' Co. was founded by William Austin, an illiterate builder from Battersea, but he was ousted from the board only three years after the company's establishment in 1867.[65] In 1872 the company bought Poupart's market gardens, which lay south of the railway tracks and west of the half-built-on Park Town estate. The total area acquired was forty acres; the price paid was £28,000, or about £625 per acre. P.W. Flower paid £1,000 per acre for similarly situated land, the later Park Town estate.[66] The relatively low price paid by the Artizans' Co. may have been due to the fact that they were buying at the bottom of the house building trough, a year earlier there had been 1,385 empty houses in Battersea alone. Flower bought his land at the beginning of the previous house building boom, and at a time when railway companies were in the market for land.

The company laid out an estate for 1,200 houses on a rigid gridiron plan, it was to be called Shaftesbury Park after the patron of the company, the Earl of Shaftesbury. Four classes of houses were built consisting of five, six,



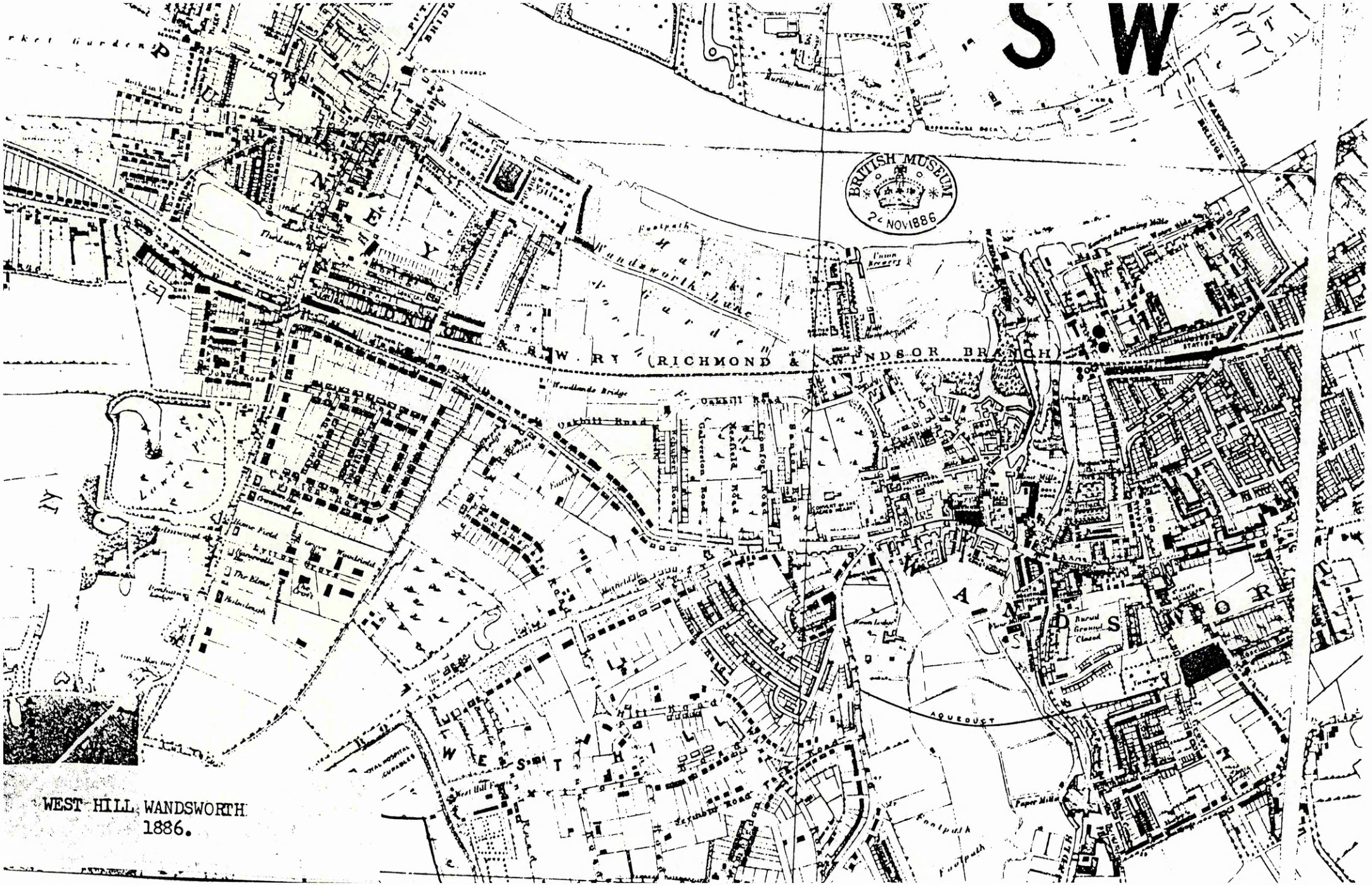
NORTH BATTERSEA - 1886.

seven, and eight rooms respectively, with rents, which included rates, ranging from 5/6d to 8/6d per week. It was hoped to sell some of the houses to their occupants and the buying prices ranged from £150 to £300 each.[67] Each house was to have its own water closet as well as a small back garden, but only the largest had bathrooms. Rents that began at 5/6d a week meant that labourers, whose earnings were low and irregular were effectively excluded from Shaftesbury Park leaving the estate to the artizans. But by April 1877 rents had been raised to 6/6d to 9/- a week for the first three grades, and £30 a year for the highest grade.[68] In the same year a writer on housing was able to praise Shaftesbury Park in these words:-

> The ground lies somewhat low, but this objection put on one side, we do not know a more desirable place for a man with a small family and small means than Shaftesbury Park.[69]

One of the drawbacks of Shaftesbury Park was its poor communications which lasted until the opening of the tramway along Lavender Hill in 1883. The directors of the Artizans's Co. had planned to open a station on the Chatham Company's line from 'Clapham Junction' to 'Ludgate Hill', and had offered to pay the railway's running expenses for five years.[70] This project was dropped and the inhabitants of Shaftesbury Park had to settle for a level crossing, (later replaced by a footbridge), which gave access to Battersea Park Road. The opening of 'Queens Road' station in 1877 did not benefit Shaftesbury Park until a way on to the neighbouring Park Town estate was made in 1882.[71]

Shaftesbury Park remains almost unaltered today; an enclave of tree lined streets and terrace houses the monotony of which is broken by paired doorways sheltered by heavy porches with date placques, and by turrets at the end of the rows. There has been none of the deterioration or sub-division into



WEST HILL, WANDSWORTH
1886.

flats so evident on other south Battersea estates, and many of the houses are now owned by their occupiers. The remaining tenanted properties are managed by the Peabody Trust for Wandsworth Council.

There was one other philanthropic enterprise in the study area before 1891, this was the model dwellings erected by the Victoria Dwellings Association. In 1876 the Battersea Park Commissioners sold two acres of land facing Battersea Park Road to the association; according to the architect of the Battersea Park building lands, the commissioners had broken with their policy of reserving the estate for middle-class housing because of the indifferent class of property already erected along Battersea Park Road.[72] The first blocks were opened in June 1877, and the accommodation provided had more in common with the model dwellings built by the Peabody Trust than with the nearby Shaftesbury Park. The flats set aside for artizans had either three or four rooms with rents of 8/- and 10/- a week. The labourers' flats had two rooms or one room only and cost 6/- or 2/6d a week. All the flats shared communal water closets.[73] Although living in Victoria Dwellings was a lot less attractive than occupying a house in Shaftesbury Park, the project realistically served the people for whom it was intended, for the cheapest accommodation was within the reach of most labourers. Victoria Dwellings became profitable once the tolls were removed from Chelsea Bridge.[74] The dwellings were well placed for 'Battersea Park', 'York Road', and 'Queens Road' stations, and after January 1881 trams passed along the front of the block. The estate was still fully occupied in 1892, but it was unpopular because of the strict manner in which the company applied its regulations.[75] By the middle of this century Victoria Dwellings had become a notorious slum, and the block was finally demolished in 1983.

As in the previous twenty years, the land societies were active in the study area, mainly on the edges of the built-up area. The street layouts provided were usually very simple, and the resulting small freeholds meant that there was no overall development plan, and the builders built the sort of houses that they thought they could easily let; it was not uncommon for short terraces of three or two storey houses to be built side by side in the same street. In south Battersea the Conservative Land Society was still active on the Bolingbroke Park Estate, and the final stages of this development began with the laying out of the western lengths of Wakehurst and Belleville Roads in 1878.[76]

The two largest land society estates in Wandsworth were both at the nothern end of West Hill. In 1874 the United Land Co. laid out Amerland, Halden and Ringford Roads and offered plots to builders. The houses to be built were to be either detached or semi-detached; those facing West Hill were to cost £600 or £1,100 per pair, while those constructed on the side roads should cost £400 each or £650 per pair.[77] This estate marked a change in the development of this part of Wandsworth, hitherto housing on West Hill had been substantial villas set in their own grounds, but the houses on the United Land Co.'s estate were still of higher value than those being erected at the same time on the Falcon Park estate in Battersea, (see below). Apart from twelve houses built on land owned by the Conservative Land Society between 1871 and 1878, this estate was covered with houses between 1877 and 1890; the year of peak activity being 1879 with forty six houses completed.[78]

A little way from the United Land Company's property the British Land Co. was developing an estate which lay to the north of West Hill and the Upper Richmond Road. The company bought the estate in 1883 for £41,000.[79] Oakhill Road was laid out along the northern boundary of the property connected to the

parallel West Hill and Upper Richmond Roads by Santos, Grenford, Maxfield, Galveston and Schubert Roads. The land was offered to local builders in a series of sales in 1884 and 1885. The minimum value of houses facing West Hill was to be £450 each, less than on the United Land Co.'s land on the other side of the road; those on the side roads were to cost £350, and those built between Oakhill Road and the embankment of the railway only £300. There were to be no public houses, shops, workshops, or factories.[80] The major period of construction on the estate began in 1884 with the erection of 76 houses; 126 were built in the following year, 42 in 1886 and 37 in 1887.[81] The houses were all in terraces but some were of two stories and others of three, often in the same road. The three-storey houses had two bedrooms and a bathroom on the first floor, and three more bedrooms on the floor above; the estimated rental in 1906 was £50 per annum, well out of the reach of artizans or labourers but possible for clerks in secure positions.[82]

Both of the West Hill estates seemed to owe the date and the nature of their development to the availability of land rather than to any stimulus from improved transport facilities. West Hill lay well away from the tram terminals in North Street and East Hill, and the Wandsworth District Board of Works had thwarted the plan to lay a tramway along West Hill and the Upper Richmond Road to Putney in 1880. Inhabitants on West Hill would no doubt be able to benefit from the District Railway service from 'East Putney', but this did not start until 1889 by which date both of the estates discussed above were almost entirely built over.

But the land societies were not involved in the development of the majority of estates; the process whereby the land was covered with houses was usually arranged directly between the landowner and the builder, and in a few cases the landowner retained some control. The Park Town estate is an example

of the latter type of development. The early struggles of the owner, Phillip Flower, with the railway companies has been related in the previous chapter. House building on Park Town came to a stop with the collapse of the boom of the late 1860s but work began again in 1874. The houses built after 1874 were very different in style from those erected in the 1860s; the three storey white-brick terraces still to be seen in Broughton Street and along Queens Road gave way to two-storey terraces in red brick. The standard accommodation in the smaller houses consisted of two parlours and a kitchen on the ground floor and three bedrooms on the first floor;[83] they were often converted into two flats. Park Town was now a truly working-class estate, not a cut down version of south Kensington as its founder had intended, and no objection was raised by the proprietors to the construction of a tramway down Queens Road which had been originally laid out to carry carriage folk from Clapham to Chelsea. Work on house building was steady but unspectacular; the maximum number of starts in any year after 1874 was 56 in 1876, and the land was not completely covered with houses until after 1900.[84]

The history of Falcon Park provides a direct contrast to that of Park Town, this estate was built over in five years. The site had been market gardens and the grounds of Fownes' glove factory, and was divided into two equal halves by Falcon Lane. Alfred Heaver, a prominent builder in south London, began the development of the land in 1875;[85] he laid out a grid of streets named either with family names, or to commemorate the colonial wars of the time. The greater part of the land was leased to builders in 1878 and 1879; the houses to be built were to be £330 minimum value on the main road and £250 on the side roads; clearly a less wealthy type of tenant was envisaged in Falcon Park than in the houses erected on the British Land Company's property on West Hill.[86] Falcon Park was very quickly covered with houses; 170 were started in 1879, and 281 in 1880; in that year this estate accounted for 20%

Queens Road in 1909.

of housing starts in Battersea.[87] The houses that were built were in terraces two stories high with back extensions; there were two parlours, kitchen, and scullery on the ground floor, and three rooms, one with a range upstairs which suggests occupation by two families. In 1889 a whole house in Heaver Road was let for 11/- a week including rates; half of a house on this estate was within the reach of most men in regular employment, and was considerably cheaper than a house in Shaftesbury Park.[88]

Many builders worked in Falcon Park but the building regulations, together with the small size of house plots, led to a basic uniformity, and the work of individual developers is marked solely by slight changes in decoration. The first houses to be built had bay windows on the ground floor only, but later ones were given bays on both floors. This is a type of house that became almost standard in Battersea and Wandsworth from the 1880s to the outbreak of the Great War. The estate would no doubt have benefitted from the construction of the tramway down Battersea Park Road in 1881, but as most of the houses were completed and occupied by that date, improvements in transport could not have acted as the principal spur to building.

The houses of north Battersea were for the most part built on erstwhile farmland and market gardens, but south of the railway tracks development was in a way secondary for a considerable part of south Battersea had been laid out in villa properties around 1800. But the villa owners of south Battersea could not always be certain of selling their houses when they wanted to; in 1875 the Dent family put the Old Park estate, which lay on the southern boundary of the parish, on the market. As the highest bid was only £19,000, the property was bought in. The high asking price was clearly a reason for the failure of the sale, but the stipulation that houses to be built should be of no less value than £800, and should be detached, was another. With terrace houses going up

on the Conservative Land Society's land nearby, no builder could hope to sell houses of that class.[89] Old Park House and five acres of land were eventually sold in 1891 for £9000, even in that year the land was well away from the frontier of building and Old Park was only slowly covered with houses.[90]

Development in Wandsworth east of the Wandle took a similar form to that in Battersea; the low ground between Garratt Lane and the L.S.W.R. main line was built up in the 1880s with two storey terraces which were often sub-divided. A house in Swaffield Road, east of Garratt Lane, was offered for sale in 1891 on a 94½ year lease; it had been divided into flats, the ground floor flat had two rooms, kitchen scullery, and W.C., while the upper flat consisted of two rooms with kitchen, scullery, and W.C. on a half landing. One flat was vacant but the other was let for 5/- a week including rates.[91] Like the houses in Falcon Park, such accommodation would have been within the reach of most working men, but the land east of Garratt Lane was poorly served with public transport until the opening of 'Earlsfield' station in 1884.

West of the Wandle lay Wimbledon Park, the largest single estate in the study area. The high ground bordering on Wimbledon Common had been covered with substantial mansions in the 1860s but the lower land still awaited a developer in 1871, and the landlord, J.A. Beaumont, was obliged to promote the Wimbledon and West Metropolitan Railway in an attempt to get things moving again. In 1883 the estate office drew up a plan of new streets and offered 457 acres for sale, 171 acres being in Wandsworth parish. The prospect of two new railway stations was offered as an inducement to builders.[92] Nevertheless, the sale was a failure, only ten acres in all were taken. This included two plots which could be used as extensions to housing already built in Standen Road, the Dairy Farm as a going concern, and only seven acres of new building land. The price paid was £2,000, or little more than £300 per acre.[93] At this date land attractive to carriage folk had already been taken, public transport to take

the slightly less affluent to town did not yet exist, and there were still tracts of land closer to London for the housing of the lower middle and working classes.

By 1891 Battersea north of the railway was almost completely built-up and so was much of south Battersea also. The largest villa estates around Clapham Common were still holding out against the tide of terraces, but they were being outflanked by the new streets between Clapham and Wandsworth Commons. In Wandsworth land was still available for housing on the Magdalen College estate south-east of the L.S.W.R. main line, and also west of the Wandle, particularly in Wimbledon Park. In Putney development was still restricted to the part of the parish between the Upper Richmond Road and the river Thames.

The various kinds of development discussed above resulted in an increase in the size of the housing stock, but this was not accompanied by an equal increase in the number of dwellings available for rent. Table 14 shows the percentage of empty houses to the whole housing stock in 1871, 1881 and 1891:-

Table 14 Empty Houses as a percentage of the total housing stock, (Inhabited + uninhabited houses) 1871, 1881, 1891.

Parish/Registration District	1871	1881	1891
Battersea	17.50	8.51	3.43
Wandsworth	12.04	9.79	5.55
Putney	9.54	4.76	7.92
Mean Study area	15.18	8.39	4.36
Clapham	4.45	3.85	4.54
Streatham/Tooting	10.65	12.34	7.46
Mean Wandsworth Reg. Dist.	12.20	8.09	4.93
Chelsea	3.89	4.30	4.31
Lambeth	5.70	5.30	5.62
Camberwell	10.89	11.00	5.74
Islington	8.91	5.71	4.37
Hampstead	9.18	8.24	7.26
Hammersmith	13.01	14.21	7.30
Mean London	7.18	7.07	6.78

Source:- PP HC 1872 (676.1) Vol. LXVII Div. 1. Table 3.
PP HC 1883 (3563) Vol. LXXIX Div. 1. Table. 4.
PP HC 1893-94 (6948.1) Vol. CV Div. 1. Table 2.

In London as a whole there was only a slight decline in the proportion of empty properties to all houses, but most districts on the table show a more substantial fall, this decline in the number of empties was most marked in the inner areas such as Camberwell and Islington, but less noticeable away from the centre of London in Hampstead and Putney. The sharpest drop in the percentage of empty houses was in Battersea; in 1871, just after the end of the building boom of the 1860s, 17.5% of houses stood empty, but at the height of the next boom in 1881 this percentage had fallen to 8.5%. By 1891 only 3% of the housing stock was unoccupied, and allowing for the normal movement of people between one house and the next, this represents a shortage rather than a surplus of housing.

The increased demand for accommodation led to the division of houses; it is possible to measure the extent of subdivision in 1891 for the census of that year distinguishes between houses and tenements, (presumably single family homes). Table 15 shows the number of tenements per house in the districts of the study area, those other areas chosen for comparison, and for London as a whole.

Table 15 Houses and Tenements - 1891

Reg. District	Tenements per house	Percentage of tenements in each room size. 1 room	2 rooms	3 rooms	4 rooms	5 rooms
Battersea	1.59	10.2	16.0	20.7	16.6	36.5
Wandsworth	1.26	5.9	8.6	12.3	14.5	58.8
Camberwell	1.47	9.3	12.5	16.8	15.5	45.9
Chelsea	1.85	21.0	22.1	15.4	11.8	29.7
Hammersmith	1.53	11.0	16.0	17.2	12.2	43.6
Hampstead	1.38	8.3	14.0	12.0	6.6	59.0
Islington	1.92	17.7	23.0	16.3	11.0	32.0
Lambeth	1.65	17.0	18.1	15.8	12,8	36.2
London	1.72	18.3	20.2	16.4	12.3	32.8

Source:- PP HC 1893-94 (6948.1) vol. CV Div. 1. Table 5.

Only Chelsea and Islington show a greater extent of subdivision than in London as a whole, but Battersea and Wandsworth, (which in this table includes not only Wandsworth and Putney but also Clapham and Streatham, show a lesser degree of subdivision than the average for London. This table also shows the composition of the housing stock in terms of rooms per tenement. The number of small tenements was greater in Chelsea where over 43% of homes consisted of one room or two rooms only. Battersea, just over the river from Chelsea, had only 26% of its homes in one or two room tenements. In the outer London districts one to four room tenements are in a minority; in both Hampstead and Wandsworth over 50% of homes were of five rooms or more.

The 1891 census also gives the number of occupants per room, so using the Registrar General's definition of overcrowding, more than two persons per room,[94] it is possible to measure the extent of overcrowding, at least in tenements of less than five rooms:-

Table 16 Percentage of total Population living in 1 to 4 room tenements at more than 2 persons to a room.

District.	Percentage of total population living in:				
	1 room	2 rooms	3 rooms	4 rooms	Total
Battersea	2.3	2.9	0.9	0.1	6.2
Wandsworth	0.8	0.8	0.3	-	1.9
Camberwell	2.1	2.1	0.9	0.1	5.2
Chelsea	4.8	4.6	1.3	0.1	10.8
Hammersmith	2.5	2.9	1.0	0.1	6.5
Hampstead	1.7	3.2	0.8	0.1	5.8
Islington	4.7	5.6	1.2	0.2	11.7
Lambeth	4.2	3.5	0.9	0.2	8.8
London	5.1	5.0	1.2	0.2	11.5

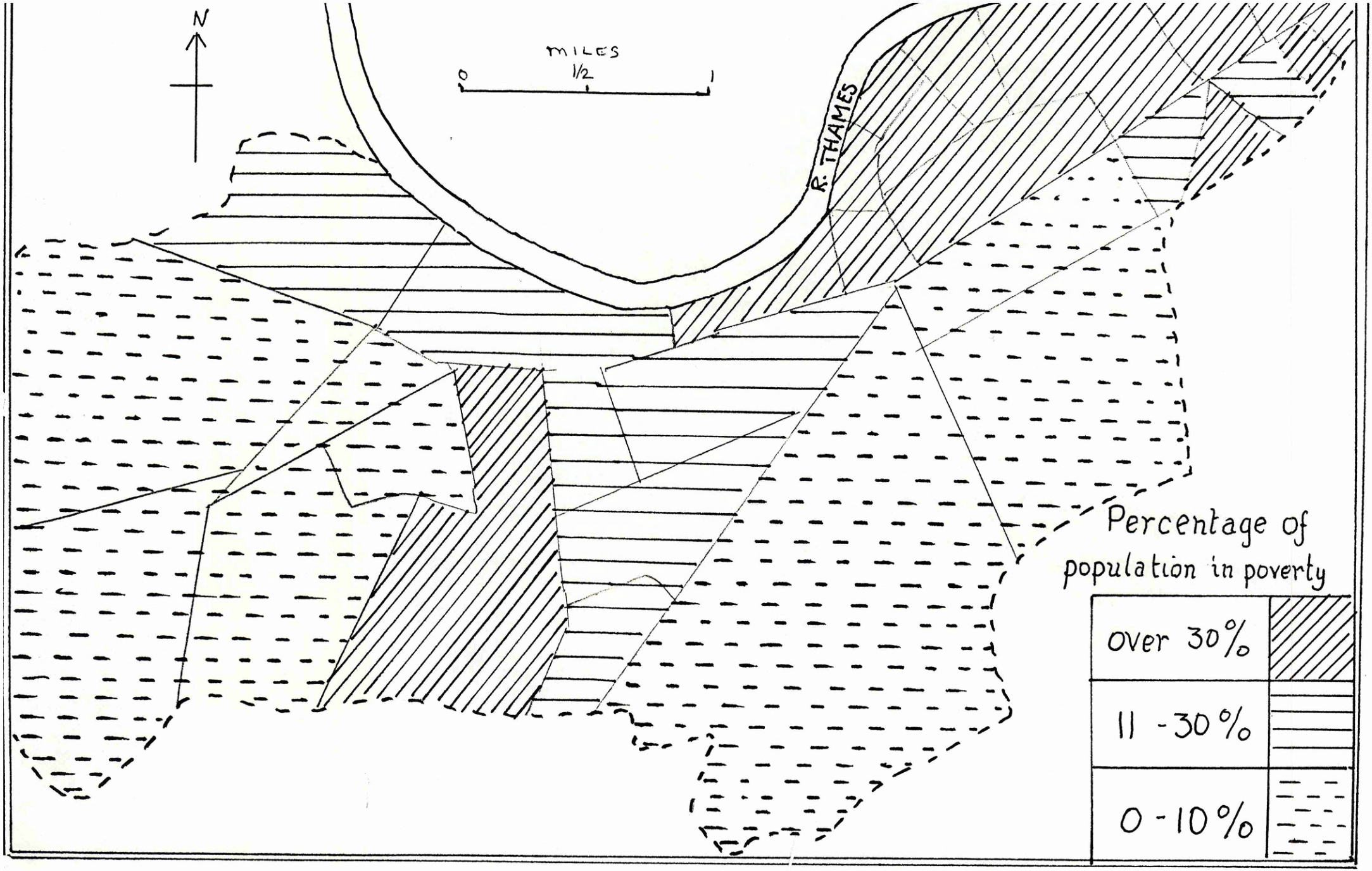
Source:- PP HC 1893-94 (6948.1) Vol. CV Div. 1. Table. 5.

Table 16 shows that at least 11% of the population of London in 1891 lived in overcrowded conditions, with similar percentages in inner districts such as Islington, Chelsea and Lambeth. Battersea, with only 6% of its people living in overcrowded conditions, would attract migration from worse circumstances in

Chelsea. Wandsworth with only 1.9% overcrowding is the least congested district on the table. The end result of the building boom of the 1880s, at least as far as Battersea was concerned, was to keep the level of overcrowding below that of its neighbours, but also to make the district attractive to migrants from more densely populated inner districts.

Poverty was a basic cause of overcrowding, and it is no co-incidence that districts that are described as overcrowded in the census of 1891, are also shown to exhibit the greatest degree of poverty in Charles Booth's survey.[95] The largest tract of poverty stretched from the mouth of the Wandle eastward along the Thames to Nine Elms. This area was dominated by the riverside factories and the railways; Booth comments in several places on the association between poverty and the proximity of railway lines. For example, in that part of Battersea east of the High Street and between the L.S.W.R. and the W.L.E.R. embankments, the oldest streets nearest the railways were the most poverty-stricken, and Booth describes the people as improvident, frequently drunk and quarrelling. The L.S.W.R. main line was a real boundary in the Battersea of 1891, south of the line nearly very one of Booth's districts had less than 10% of the population in poverty. Shaftesbury Park was singled out for special praise by Booth's colaborator Graham Balfour.[96] South of Lavender Hill Battersea was still predominently middle class, chiefly clerks going to the City daily, many of them keeping a servant.

In Wandsworth, away from the eastern river front, and in the whole of Putney, nearly all of Booth's districts had less than 30% of the population in poverty. The people are described as either clerks or shopkeepers with a few labourers near the river, or as persons of wealth living in large houses and keeping servants. Thus by 1891, a basic distinction was established between Battersea, mainly prosperous working class but with a considerable amount of


N
MILES
0
1/2
1
R. THAMES
Percentage of population in poverty
over 30%
11 - 30%
0 - 10%

poverty in the north of the parish, and Wandsworth and Putney, mostly middle class, with poverty confined to pockets along the river. This distinction was now recognised in the structure of local government, for Battersea became an incorporated vestry in 1887 and thus independent of the Wandsworth district board of works. The stage was now set for the radical political life of Battersea in the early twentieth century.

What impact did improvements in transport have on the general process of suburbanisation in Battersea, Putney, and Wandsworth in the years from 1871 to 1891? Only one new railway line was opened in these years, but it was promoted especially to encourage the construction of houses on the Wimbledon Park estate. But many years elapsed between the authorisation of the line and its completion; the mere promise of a new service was not enough to tempt builders on to the estate, and house building on the lower ground did not begin until ten years after the line was opened in 1889. But there were two new stations opened on already existing lines; 'Queens Road' and 'Earlsfield'. However, services from 'Queens Road' began several years after the re-commencement of construction on the nearby Park Town estate. 'Earlsfield' station came as the culmination of many years' agitation on the part of local residents.

These years also saw a steady if unspectacular increase in the number of workmen's trains which made it possible for working men in regular employment to contemplate travelling to town on a daily basis. But workmen's trains were most frequent from the stations in the already heavily built-up areas of Battersea.

The principal new form of transport in the years from 1871 to 1891 was the horse tram, and the legislation under which tramways were constructed obliged the operators to provide cheap fares to encourage travel by the working

classes. Reference has already been made to the claim by H.H. Gordon that the house construction boom of the early 1880's was the result of the spread of horse tramways after 1879. A contrary view was expressed by S.E. Rasmussen who drew attention to the difficulties under which the promoters of horse tramways operated. The threat of compulsory purchase meant that tramways would follow rather than preceed development, for no line would be built unless it was certain to pay.[97] The evidence from Battersea, Wandsworth and Putney supports Rasmussen rather than Gordon. The horse tramways of Battersea and Wandsworth ran through localities either already covered with houses, or where building was well under way before through services to Westminster and the City were opened.

In the private enterprise phase of tramway construction lines were laid through areas that could provide immediate traffic and therefore profit to the promoters. The second phase of tramway building in the early twentieth century made use of a new form of traction, electricity, and private enterprise was replaced by municipal action as part of the policy of the London County Council to encourage migration in order to ease the housing situation in the congested parts of central London. These developments, and their consequences for the study area, are the subject of the next chapter.

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CHAPTER 6

The Completion of the Tramway Network 1891 - 1914.

In the period covered by this chapter, the years from 1891 to 1914, there was no major railway construction in Battersea, Wandsworth, or Putney for the first time since the late 1830's. The main-line railway companies were at the height of their prosperity, and a general complacency led to a stagnation in services. Consequently, the railways were challenged for the suburban traffic first by the trams, and later by the electrified underground lines. The main-line companies responded lethargically, but by 1914 the L.B.S.C.R. was running electric trains of its own in the study area, and the L.S.W.R. was to follow suit in the early years of the Great War.

In this period travel by road became the most popular way of going to town, especially by tram. Three important developments took place in the tramway network in these years: first the old private companies within the County of London were taken over by the L.C.C., then the horse trams were replaced by electric cars, and finally the system was extended into districts that had resisted the coming of the horse tram. This competition compelled the horse omnibus operators to modernise their businesses, and from 1906 onwards horse buses gave way to motor buses.

Another feature of the twenty or so years between 1891 and the outbreak of war was a change in the rate of population growth; for the first time population grew faster in Wandsworth and Putney than in Battersea, and between 1901 and 1911 Battersea, in common with some other inner areas, and the County

of London itself, actually lost people. The central years of the period covered by this chapter experienced the third London house construction boom since 1860; the peak was less pronounced than in earlier booms, and housing starts remained high from 1895 to 1903. This time more houses were built in Wandsworth and Putney than in Battersea. Despite the overall increase in the size of the housing stock, the period was noteworthy for a rise in the rate of overcrowding, not only in the county as a whole, but in Battersea and Wandsworth also. The relationship between innovations in transport and the rate and nature of suburban growth is more complicated in those years than in earlier decades; this chapter will begin by considering the changes in public transport, and will then go on to examine the progress and nature of suburban development in the study area.

The horse tramway network in Battersea and east Wandsworth was complete by 1883. These services were operated by the South London Tramway Company, and under the Tramway Act 1870, the tramway authority, since 1889 the London County Council, had power to take over the system after twenty one years from the authorisation of each line. In the case of the South London Company's lines they would become liable to compulsory purchase betwen 1900 and 1902. The Progressive Party on the L.C.C. was particularly anxious to municipalise the tramways in order that, as John Williams Benn of the Highway Committee said in 1894, the council could then improve the conditions of the tramway workers, and by reducing fares, increasing the frequency of services, and by running more workmen's cars, enable more prople to move into the suburbs and thus ease overcrowding in central London.[1] The L.C.C. took powers to operate trams as well as to own them in 1895,[2] and in 1900 the council served notice on the South London Company for compulsory purchase of those lines authorised in 1879.[3] Agreement was reached with the South London whereby the council would take over the complete system, the transfer to be completed by the 11th November 1902.[4]

When the South London Tramways came into the hands of the L.C.C. in 1902 traffic was in decline, from a high point of 21.9 million passengers in 1898-99 to 17.0 million in 1901-02.[5] The County Council inaugurated its cheap fares policy by the introduction of half-penny stages,[6] and the number of passengers carried began to rise again to 19.7 million in 1903. In that year the most popular routes were the ones from East Hill Wandsworth by way of Clapham Junction to Vauxhall and Westminster Bridge, 6.0 million passengers in 1903, from East Hill along the same route to Vauxhall then to the Borough, 3.5 million, and from North Street Wandsworth along Battersea Park Road to Vauxhall and the Borough, 3.4 million passengers.[7]

When the L.C.C. had completed the municipalisation of the old horse tramways, it began a programme of electrification and extension. In 1900 the county council took powers to electrify using the conduit system, which avoided the need for unsightly overhead wires, but involved digging up the streets, and was considerably more expensive to install than the overhead system.[8] The first tram route to be electrified by the L.C.C. was the line from Westminster Bridge to Totterdown Street in Tooting, and the new service began operation in March 1903.[9] This route was given priority because the council was in the process of building a large estate of council houses in Totterdown Fields. In the study area electrification went hand in hand with the extension of the system. Every year from 1900 to 1910 the L.C.C. promoted a Tramways and Improvements Bill, and most of these bills included new lines in Battersea, Wandsworth, or Putney. Not all the proposed new lines were sanctioned by Parliament, but the principal new lines to be opened in the study area were:-

1. Tooting, via Garratt Lane, to North Street Wandsworth
   authorised 1901 opened 1906.
2. Hammersmith Bridge to Putney Bridge
   authorised 1902 opened 1909.

3. Clapham Common, Cedars Road to Lavender Hill
   authorised 1906 opened 1910.

4. Beaufort Street, Chelsea, to Battersea Park Road
   authorised 1909 opened 1911.

5. Putney Bridge to Wandsworth High Street
   authorised 1910 opened 1912.

The first of the original horse tramways to be modernised was the route from North Street, along Battersea Park Road to Vauxhall; the new service began in October 1906; the last electrification to be completed was the line from Chelsea Bridge to Lavender Hill, opened in January 1909, and from East Hill Wandsworth by way of Clapham Junction to Vauxhall, opened in December 1909.[10] Thus there was a gap of over twenty years from the completion of the horse tramways in 1883 to the opening of the first electric line in 1906. Even at the outbreak of the Great War not all of the parishes of Battersea, Wandsworth, and Putney were served by trams. The whole of Battersea south of Clapham Junction was without trams as was most of Putney and Wandsworth west of the Wandle.

Electric trams at Clapham Junction in 1913.

This patchy coverage was not the fault of the London County Council who between 1900 and 1910 had brought forward schemes which if they had been put into effect, would have left no main road without a tram service. But although the L.C.C. was the tramway authority for the county of London, responsibility for the highways remained with the lower-tier bodies who retained a veto on whether a particular road could be used by trams or not. In the case of the study area these bodies were, before 1900, the Wandsworth District Board of Works and Battersea Vestry, and after 1900, Battersea and Wandsworth Borough Councils. The area presided over by Battersea vestry and borough council was the same, the historic parish of Battersea, and both the vestry and its successor were generally enthusiastic supporters of the trams. The borough council supported a proposed line from Battersea Park Road and over Battersea Bridge and along the Embankment to Chelsea Bridge.[11] In 1900 the council suggested to the L.C.C. the construction of a line from Clapham Junction to Balham by way of Wandsworth Common;[12] a tram service along the suggested route would have greatly improved access to the south of Battersea which had the last land available for new housing in the borough. The L.C.C. was obliged to abandon the plan because of opposition from the Wandsworth Board of Works, from residents living on the eastern side of Wandsworth Common, and from Bolingbroke Hospital.[13]

So south Battersea, still mainly middle class in 1900, escaped invasion by trams. But opposition to tramways was strongest in Putney; in 1900 the London United Tramways, whose network in west London lay outside the county, and so avoided takeover by the L.C.C., proposed to lay a line from Richmond, along the Upper Richmond Road to Putney. This proposal was strongly resisted locally, partly because the L.U.T. intended to use overhead wires as on the rest of the system. In December 1900 Alderman Dryden presented a petition against tramways in Putney to Wandsworth Borough Council, it was signed by

1,190 ratepayers of Putney.[14] The council agreed to oppose the scheme, which in any case was not put into effect.[15]

The authorities in Wandsworth were considerably less favourable to trams than were their colleagues in Battersea. There were important differences between the two localities; Battersea was only one parish, but the Wandsworth District Board of Works and its successor the Wandsworth Borough Council, were responsible for a much less homogeneous area which consisted of five former parishes, each in a different stage of development. Policy could change quite swiftly, from one meeting of the board or council to another, as a consideration of the plan to lay a tramway from Clapham to Putney Heath will show. In 1899 the L.C.C. proposed to build a light railway from Clapham, along the north side of Clapham and Wandsworth commons to Wandsworth High Street, then up West Hill to Putney Heath and on to the county boundary with Kingston, a revival of an idea first mooted in the 1870s. Had the L.C.C. been able to persuade the Railway Commissioners to sanction this line as a light railway rather than a tramway under the Act of 1870, the veto of the highway authority would have been avoided. When the scheme was first discussed by Wandsworth Board of Works in September 1899, the members voted against by thirty votes to one.[16] The board discussed the plan again the following November, and a motion to give approval provided that the tramway was promoted under the Tramways Act was defeated by the chairman's casting vote after a twenty-twenty tie. This was one of the few occasions when the votes of individual members were recorded, and the minutes show that the board divided roughly on geographical lines; the members for Clapham and Streatham where trams had long been a feature of the landscape, voted 14 to 7 in favour of the line up West Hill, but the representatives of Putney, Tooting and Wandsworth declared against the proposal by 13 votes to six.[17] Attitudes changed slightly when the board of works was replaced by a directly elected council;

in 1902 Wandsworth Borough Council voted to support the L.C.C.'s proposals provided that Wandsworth was not obliged to find more than a sixth of the cost of road widening.[18] A year later the council recorded its regret that the L.C.C. had finally dropped the idea; in fact trams were never to run up West Hill to carry the working classes to Putney Heath.[19]

By 1914 Battersea north of the Battersea Rise, north Wandsworth and Garratt Lane, and Putney High Street, were linked to the tramway system of London. Those who lived in these parts of the study area had access to a tram every five minutes, or more frequently at busy times, with a maximum fare for a single journey of 3d. In 1903 the L.C.C. had left the maximum fare unaltered but had reduced the overall level by the introduction of ½d stages; the fare from the Hop Exchange, (London Bridge), to Battersea Park Station was now 1½d, from Westminster to Clapham Junction 2d. and from the Hop Exchange to North Street Wandsworth 2½d.[20] Apart from the fare reductions the full impact of the L.C.C. takeover and the subsequent modernisation of the system was not felt until the middle of the first decade of the new century, with the opening of the new electric tram service along Garratt Lane in 1906, and the electrification of the horse tram line along Battersea Park Road in the same year.

From 1905 the electric tram began to make inroads into the profitability of the main line railways. In the second half of 1907 the London suburban district of the L.S.W.R. lost 1,328,000 passengers, due according to Sir Charles Scotter the chairman, to competition from the trams and the omnibuses.[21] One way to recover this traffic was by electrification; the City and South London tube railway had used electric traction from the beginning, and the Metropolitan District electrified its main line, and the branch to Putney Bridge and Wimbledon, in 1905.[22] The L.B.S.C.R. took powers to electrify its

complete system in 1903,[23] but the first line chosen for modernisation was the South London Line, from Victoria through Battersea Park to London Bridge. This route had suffered severely from tramway competition which, according to Lord Cottesloe, chairman of the company, was restricted at this time to a distance of five to six miles from the terminus.[24] The new service was opened in December 1909 and carried 3,743,160 passengers in the first half of 1910, against only 1,958,129 in the same period in 1909.[25] But this improvement did not restore the situation to that existing before the trams made their challenge, for the same line had carried over 8,000,000 passengers in 1902.[26] In August 1910 the L.B.S.C.R. decided to electrify the line from Battersea Park to Balham, West Norwood, and Crystal Palace,[27] and the first electric trains ran from Victoria to Crystal Palace in May 1911.[28] In 1913 the L.S.W.R. began the electrification of its suburban lines, but the first electric service on the South-western did not begin until 1915.[29]

It is noteworthy that the lines chosen for electrification ran through districts already built-up and where an established traffic was being lost to the trams. As yet there was no question of using electrification to gain new custom by attracting migrants to undeveloped parts of the suburbs. The weekday train services from stations in the study area in 1891 and 1914 are set out in the following table:-

Table 1. Weekday Train Services from stations in Battersea, Wandsworth and Putney to London 1891 and 1914.

Local Station	Terminus	Co.	1891		1914	
			Total	Before 9 am	Total	Before 9 am
Wandsworth Twn.	Waterloo	LSWR	61	11	79	16
Putney	Waterloo	LSWR	69	13	86	15
Clapham Junc.	Waterloo	LSWR	214	36	268	28
Clapham Junc.	Victoria	LBSCR	172	32	280	24
Clapham Junc.	London Br.	LBSCR	38	9	26	5
Clapham Junc.	Ludgate H.	LCDR	12	1	1	-
Clapham Junc.	Addison R.	WLER	39	6	27	8
Clapham Junc.	Willesden	WLER	5	-	5	-
Battersea Pk.	Victoria	LBSCR	141	28	141	35
Battersea Pk.	London Br.	LBSCR	103	17	89	18
Battersea Pk Rd	Victoria	LCDR	48	16	26	8
Battersea Pk Rd	Ludgate H.	LCDR	57	12	25	7
Wandsworth Cmn.	Victoria	LBSCR	80	13	121	22
Wandsworth Cmn.	London Br.	LBSCR	45	11	26	5
Wandsworth Cmn.	Addison R.	WLER	8	-	1	-
Wandsworth Cmn.	Willesden	WLER	5	-	1	-
Battersea	Victoria	WLER	9	2	7	-
Battersea	London Br.	WLER	8	3	-	-
Battersea	Waterloo	LSWR	15	2	-	-
Battersea	Ludgate H.	LCDR	13	4	2	-
Battersea	Willesden	WLER	6	2	16	1
Battersea	Addison R.	WLER	53	6	27	8
Queens Rd.	Waterloo	LSWR	71	15	55	16
Queens Rd.	Willesden	WLER	7	1	-	-
Earlsfield	Waterloo	LSWR	41	10	73	17
East Putney	Waterloo	LSWR	11	2	26	8
East Putney	Mansion H.	District	32	4	108	24
Southfields	Waterloo	LSWR	11	2	26	8
Southfields	Mansion H.	District	32	4	108	24

Sources: Bradshaw's Railway Guide June 1891 and June 1914.

Three features on this table attract attention, they are the decline in circuitous routes, the similar falling off in services from stations close to the termini, and the growth of services from stations over five miles from London.

The opening of the West London Extension Railway and the Chatham Company's Metropolitan Extensions in the 1860s was followed by the introduction of several roundabout routes between the northern and southern lines, and these services were the first to suffer from the competition of

better means of road transport, electric trams, and in the centre the new motorbus. Thus the number of trains available from 'Queens Raod' to 'Willesden' fell from 7 in 1891 to none at all in 1914. There had been a similar decline in the frequency of trains from inner stations to the termini; in 1891 there had been 71 trains a day from 'Queens Road' to 'Waterloo' but by 1914 the number had fallen to 55. similarly, despite the electrification of the South London line, train services from 'Battersea Park to 'London Bridge' fell from 103 in 1891 to 89 at the outbreak of the Great War.

The drop in traffic from inner suburban stations was accompanied by a growth in services from stations further from the centre. Thus the number of weekday trains from 'Putney' to 'Waterloo' had grown from 69 in 1891 to 86 in 1914, and from 'Earlsfield' to the same terminus from 41 in 1891 to 73 by the year 1914. In all the table suggests a rough balance between trams and trains; the trams taking over the business of carrying people short distances to the centre of town, and the railways holding their own in the outer suburbs, beyond five or six miles from the termini. But the sheer availability of services was not sufficient to encourage migration to the suburbs from the overcrowded working-class districts of central London. It had been recognised as early as the Cheap Trains Act of 1883 that no such movement was possible without special concessionary fares.

If workmen's trains were to enable the working man to move out of the slums into the suburbs, they had to be supplied in sufficient quantity, at the right time, and at a fare that most workers could afford to pay. Agitation for more workmen's trains came from the district boards of works and vestries; delegates from Wandsworth attended conferences called by Fulham Vestry in 1894 and in 1898 when the meeting passed a motion calling for workmens's trains from all stations up to twelve miles from the termini.[30] But the major champion of

the workmen's trains was the L.C.C. who agitated with the railway companies, with Parliament, and with the Board of Trade, for improvements in service, but with no conspicuous success. In June 1893 the Council had been unable to persuade the railway companies to run workmen's trains later than 7 am.[31] John Kellett has described in detail the reluctance of the railway companies to run special cheap trains for workers, even the chairman of the Great Eastern, whose railway had a good record in this respect, said that the workmen's trains drove away the more profitable middle class traffic who asked for no concession on fares, and who usually paid in advance.[32] The southern companies provided more workmen's trains than the northern companies, (with the exception of the Great Eastern), but according to a survey carried out by the L.C.C. in 1897, based on returns submitted by the trades unions, neither the L.C.D.R. nor the L.B.S.C.R. carried more than 10,000 workers a day, or 2,000 less than the total number of organised workers travelling by train. Only the L.S.W.R. laid on more accommodation than was at present required with accommodation for 18,000 workers but carrying only 13,000 workmen daily.[33]

The following table sets out the number of workmen's trains running in the morning from stations in the study area to the termini in 1892, 1903 and 1913:-

Table 2 Workmen's Services from stations in Battersea, Wandsworth and Putney - 1892 - 1903 - 1913.
Frequency and morning limits

Co.	Station	Terminus	1892		1903		1913	
			Total AM	Time Limit	Total AM	Time Limit	Total AM	Time Limit
LCDR	Battersea Pk R.	Ludgate H.	3	6.08	9	7.26	6	7.20
LCDR	Battersea Pk R.	Victoria	2	6.29	-	-	-	-
LBSCR	Battersea Pk.	London Br.	6	6.25	9	7.05	10	7.31
LBSCR	Clapham Junc.	London Br.	1	5.45	2	6.34	3	7.07
LBSCR	Wandsworth Cn.	London Br.	1	5.49	2	6.38	2	7.10
LSWR	Queens Rd.	Waterloo	12	7.45	8	6.34	14	7.41
LSWR	Clapham Junc.	Waterloo	13	7.42	23	7.42	23	7.37
LSWR	Wandsworth Tn	Waterloo	6	7.25	9	7.38	8	7.34
LSWR	Putney	Waterloo	6	7.58	8	7.21	8	7.18
LSWR	Earlsfield	Waterloo	6	7.58	11	8.00	12	7.36
Dist.	East Putney	Mansion Ho.	2	7.45	4	6.47	6	6.56
Dist.	Southfields	Mansion Ho.	2	7.42	4	6.44	6	6.53
WLER	Battersea	Addison Rd.	-	-	5	7.02	5	7.35
LBSCR	Clapham Junc.	Victoria	-	-	9	7.37	18	7.47
WLER	Clapham Junc.	Addison Rd.	-	-	4	7.10	5	7.33
LSWR	East Putney	Waterloo	-	-	3	7.35	6	7.30
LSWR	Southfields	Waterloo	-	-	3	7.31	6	7.26
LBSCR	Wandsworth Cn.	Victoria	-	-	9	7.25	14	7.43
WLER	Battersea	Willesden	-	-	-	-	4	7.35
WLER	Clapham Junc.	Willesden	-	-	-	-	4	7.33

Sources: L.C.C. - Report of the Public Health and Housing Committee - London Statistics Vol. II 1891-92
L.C.C. - Quarterly Return of Workmen's Trains and other cheap morning fares - 1.8.1903 & 1.8.1913.

The greatest growth in services is noticeable from L.S.W.R. stations; there were thirteen trains from 'Clapham Junction' to 'Waterloo' in 1892, 23 in 1913, similarly the service from 'Earlsfield' to 'Waterloo' grew from six trains in 1892 to 12 trains 21 years later. The services on the Brighton line showed a similar expansion; there were no workmen's trains from 'Wandsworth Common' to 'Victoria' in 1892, 9 in 1903 and 14 in 1913. Even in 1913 the number of workmen's trains from stations in what were still middle-class localities was small; 'Putney' had only 8 trains for workmen to 'Waterloo' in the morning, and the District Line, although now electrified, offered only six workmen's trains from 'Southfields' and 'East Putney' to 'Mansion House'. Generally workmen's trains were most frequent from the old established working class

parts of the study area such as around 'Clapham Junction' and 'Queens Road'. There is little evidence of any wish on the part of the railway companies to initiate a service in advance of demand. Only in the case of 'Earlsfield' are the workmen's trains likely to have been in excess of demand, for this was a part of Wandsworth that was not as yet completely built over.

The limit set by the railway companies on the time of arrival was restrictive but the factor that really determined whether a worker could move to the suburbs was the cost of travel, and the following table shows the development of daily return fares from stations in Battersea, Wandsworth, and Putney from 1892 to 1913:-

Table 3. Workmen's Services from Stations in Battersea, Wandsworth, and Putney 1892- 1903 - 1913.

Local Station	Terminus	Daily Return Fares 1892	1903	1913
Battersea Park Rd.	Ludgate Hill	2d.	2d.	2d.
Battersea Park Rd.	Victoria	2d.	—	—
Battersea Park	London Bridge	4d.	4d.	4d.
Clapham Junction	London Bridge	4d.	4d.	4d.
Wandsworth Common	London Bridge	4d.	4d.	4d.
Queens Road	Waterloo	2½d.	2d.*	2d.
Clapham Junction	Waterloo	3d.	2½d.*	2d.
Wandsworth Town	Waterloo	4d.	3½d.*	3d.
Putney	Waterloo	2/6d week	4d.*	4d.*
Earlsfield	Waterloo	2/- week	3½d.*	3d.*
East Putney	Mansion House	7d.	4½d.	4½d.
Southfields	Mansion House	7d.	4½d.	4½d.
Battersea	Addison Rd.	—	3d.	3d.
Clapham Junction	Victoria	—	2d.	2d.
Clapham Junction	Addison Rd.	—	3d.	3d.
East Putney	Waterloo	—	4d.*	4d.*
Southfields	Waterloo	—	4d.*	4d.*
Wandsworth Common	Victoria	—	3d.	3d.
Clapham Junction	Willesden	—	—	4d.

* = up to 7 am only

Sources: L.C.C. Report of the Public Health and Housing Committee - London Statistics Vol II 1891 - 92.
L.C.C. Quarterly Returns of Workmen's Trains and other Cheap Morning Fares - 1.8.1903 and 1.8.1913.

By 1912, 2d a day was within the reach of most workmen, but 4d a day on fares was the maximum that could be afforded by the majority of men on weekly wages.[34] In 1892 only east Battersea was within the 2d a day range, and the 4d a day range extended no further than 'Wandsworth Town'. By 1903 2d a day would take a worker as far as 'Clapham Junction', and the whole of the study area lay within the 4d a day range. The situation remained substantially unchanged in 1913. Therefore by the first decade of this century it was theoretically possible for workmen to move into any part of the study area, but only a truly practical proposition if the combined rail fare and rent did not exceed the rent of comparable accommodation close to the place of work. By 1900 skilled workers were paying up to 20-30% of their weekly wages in rent, and labourers and the poor paid an even higher percentage.[35] By 1905 the cost of housing accounted for 34% of the average wage of that year.[36] In 1900 the L.C.C. carried out a survey of rents and workmen's fares for various trades, and from various stations on the L.S.W.R. The following table shows the percentage of weekly wages spent in rent and travel combined for various trades living near stations in the study area. The rents are for two and three room tenements, and the wages are those paid to each trade in central London.

Table 4 — Rent and Travel Costs as a Percentage of Weekly Wages Stations on the L.S.W.R. in the Study Area 1900

Occupation	Av. Weekly Wage	Queens Road	Clapham Junction	Wandsworth	East Putney	Putney	Earlsfield
Gas Stokers	31s 2d	27.3	29.1	--	--	--	--
Engineers	38s 4d	23.1	23.7	--	--	--	22.7
Carpenters	42s 10d	20.6	21.0	--	--	21.6	20.5
Labourers	28s 7d	30.9	31.7	32.1	--	32.4	30.6
Painters.	34s 8d	25.5	25.9	--	--	--	25.3
Masons	42s 4d	--	21.4	--	--	21.8	20.6
Postmen	26s 0d	--	--	35.3	--	35.6	--
Printing	34s 7d	25.5	--	26.5	29.4	26.7	--
Building	37s 8d	23.4	24.1	24.3	27.0	--	--
Railway Gds	26s 0d	33.3	--	--	--	--	--
Smiths	38s 9d	22.8	--	--	--	--	--
Watermen	36s 0d	--	--	25.5	--	--	--
Plasterers	44s 11d	--	--	20.5	--	--	--

Source:- L.C.C. - London Statistics Vol.XL 1900-01.

a) Wages in central London.
b) Weekly Workmens returns.
c) Weekly rent two to three roomed tenements.

With the exception of labourers and postmen, all stations in the study area were accessible to workmen for less than 30% of their wages. There was little cost advantage in choosing a particular locality, except for 'Earlsfield' where the percentage was substantially lower than for stations nearer to 'Waterloo' such as 'Queens Road' and 'Clapham Junction'. In this part of Wandsworth at the beginning of the century there was still building land available and the builders were active in erecting rows of terrace houses typical of south London at this date. It therefore seems true to say that it was the availability of houses rather than the level of fares that determined where a working man could afford to live.

The railways were not the only providers of workmen's fares, the trams had been obliged to give concessionary fares under their authorising Acts. Services and fares are set out in the following table:-

Table 5 Workmen's Services from Battersea, Wandsworth and Putney 1895 - 1903 - 1913. Trams.

Routes

1. North Street - Battersea Park Road - Westminster Bridge.*
2. North Street - Battersea Park Road - Hop Exchange. *
3. East Hill - Lavender Hill - Vauxhall - Westminster.
4. East Hill - Lavender Hill - Vauxhall - Hop Exchange.
5. Chelsea Bridge - Lavender Hill.
6. Tooting - Garratt Lane - North Street - Battersea Park Road - Embankment.
7. Tooting - Garratt Lane - North Street - Battersea Park Road - Hop Exchange.
8. Lavender Hill - Victoria.
9. East Hill - Cedars Road - Clapham - Waterloo.
10. Clapham Junction - Battersea Bridge Rd. - Chelsea.
11. Wandsworth - Putney Bridge - Hammersmith - Harlesden.

* Replaced by routes 6 and 7 after 1906.

Table 5 (contd.)

Route	1895		1903		1913	
	Total Morning	Time Limit	Total Morning	Time Limit	Total Morning	Time Limit
1.	2	6.03	2	7.13	-	-
2.	7	7.15	9	6.59	-	-
3.	-	-	3	7.12	44	7.57
4.	-	-	1	7.04	-	-
5.	3	7.05	3	7.05	Frequent	7.54
6.	-	-	-	-	33	7.44
7.	-	-	-	-	23	7.08
8.	-	-	-	-	14	7.32
9.	-	-	-	-	16	7.26
10	-	-	-	-	20	7.46
11.	-	-	-	-	33	7.41

Fares - 1892 - North Street to Westminster 2d. Single
North Street to Hop Exchange 2d. Single
Chelsea Bridge to Lavender Hill 1d. Single
1903 1d. single any one complete route.
1913 1d. single any one complete route.

Sources: L.C.C. Report of Locomotive Service 31.5.1895.
L.C.C. - Quarterly Return of Workmen's trains and other cheap morning fares - 1.8.1903 and 1.8.1913.

Up to 1903 the total number of workmen's trams in operation was small, and the service was restricted to north Battersea and east Wandsworth. By 1913 workmen's trams were available from most of the area east of the Wandle; the service was frequent and the maximum return fare no more than 2d. Thus it was possible to travel for 2d a day from Earlsfield to the Hop Exchange by tram whereas the railway fare from 'Earlsfield' to 'Waterloo' was 3d a day. But the trams, even after electrification, were slow, and their carrying capacity limited when compared with the train. The trams were most suited to short journeys, to local work or to the shopping centres of Wandsworth High Street and Clapham Junction. Only the railways could move people in sufficiently large numbers to permit large scale migration.

There were two other changes in suburban transport in the years between 1900 and the outbreak of war that merit at least passing attention; one, the motorisation of the omnibus was of greater importance for post war years than for pre-war years, the other, was the attempt by the L.C.C. to revive the river steamers as a major form of transport. The Council started a passenger and parcel service on the Thames from Plumstead in the east to Hammersmith in the west, in July 1905. But the service made a loss and was scrapped in 1908.[37] The first application of mechanical power to the omnibus in the study area was the introduction of motor "wagonettes" from Clapham Junction to Balham, and from Piccadilly to Putney in 1901.[38] In 1903 there were only horse buses, and as had been true since the days of the short stage coach, the most frequent services were those from the West End to Putney. In 1907 the horse bus routes remained substantially as they were in 1903, but now they had been joined by four motor bus services. Three routes to Putney and one to Clapham Junction. In the same year, 1907, in London as a whole motorbuses carried 141 million passenger horse buses 189 million, but the L.C.C. and private tramways carried 590 million passengers.[39] By 1912 there were nine motor bus routes in the study area, the London General Co. operating seven of them on routes with route numbers that are still familiar today, for example the number 22 bus was already running between Homerton and Putney Bridge. But there were still four horse bus services, especially in the still semi-rural west; a horse bus still ran once an hour up Putney Hill to Putney Heath and Roehampton. Even after motorisation, the initial unreliability of the engines, the relatively high fares, and the late starts, prevented the early motor bus from being a serious challenge to the electric tram, that was to come after the Great War.[40]

Those bodies like the L.C.C. that were concerned to promote improvements in transport in general, and an extension to workmen's services in particular, believed that the lower paid could only migrate out of the inner part of London

if they were able to travel outside the suburbs to work. Unfortunately, there are no data before the outbreak of the Great War on the workplaces of the occupied population, but the census of 1921 did include a question on this subject for those living in the London area and in the Home Counties. The following table shows the workplaces of the residents of the boroughs of Battersea and Wandsworth in 1921, the numbers of those working in the borough of residence and outside it. The same data are given for those boroughs that have been used for the purposes of comparison elsewhere in this study:-

Table 6. Workplaces in London and Five Home Counties 1921 - Percentages.

Borough	Resident - working in	Resident - working outside	Resident - not stated	Resident - total occupied
Battersea	33.5	57.5	9.0	100.0
Wandsworth	35.7	54.8	9.5	100.0
Camberwell	33.2	58.6	8.2	100.0
Hammersmith	34.8	49.2	16.0	100.0
Hampstead	44.3	45.3	10.4	100.0
Islington	33.3	56.8	9.9	100.0

Source:- PP HC 1922-24 Vol. VIII County of London Pt 3. Table 1.

In every case more residents worked outside their borough than within it. The percentage being greatest in the districts closest to town. In Battersea 57% of the occupied population worked outside the borough, and in Wandsworth over 54%. The bald percentage figures suggest a high degree of commuting to town but an examination of the actual recorded workplaces leads to a rather different conclusion.

Table 7. Persons Enumerated in Specified Area and Working Elsewhere - 1921

Persons working outside borough of residence in	Battersea		Wandsworth	
	Numbers	Percentage	Numbers	Percentage
Non-contiguous boroughs	20638	46.7	66478	80.4
Contiguous boroughs	23510	53.3	16162	19.6
Total occupied workforce in non- contiguous boroughs		26.9		44.1

Source - PP HC1922-24 vol. VIII County of London Pt 3. Table 1.

If those boroughs that border on Battersea and Wandsworth are eliminated, on the assumption that the journey to work in such case need only be a short walk, we find that only 27% of the Battersea workforce needed to use transport to get to work. In the much larger borough of Wandsworth where local employment opportunities were more limited, the percentage was 44%. But these figures can only be used as a rough guide, for the degree of travelling to work is likely to have been less before the war than after.

Neither the pre-war nor the post war censuses give the workplace of those engaged in individual trades, and the following table, which analyses the occupations of the population of Battersea and Wandsworth, and compares them with Hampstead, Camberwell and the County of London in 1911, cannot state whether the work was done locally or away from home.

Table 8a. Occupations of Males & Females over Twenty Years old - Numbers - 1911.

Occupation	Wandsworth	Battersea	Hampstead	Camberwell	London
Agriculture	1033	154	341	369	7425
Mining	203	133	71	202	3345
Building	11039	7395	1792	8678	129347
Manufacture	20452	14313	4811	27334	474577
Transport	8809	7288	1958	10074	196562
Warehouses	1516	1051	359	2119	31682
Sea and Inland Navigation	266	183	55	279	33780
Railways	2143	2851	464	1559	35070
Roads	4884	3203	1080	6117	96030
Dealing	17071	8908	5187	16813	293058
Industrial Ser.	16554	6180	4699	11794	174583
Clerks	8400	3207	1982	6340	81477
Labourers	1870	1356	327	1771	39081
Others	6284	1617	2390	3683	54025
Public Service & Professional	17295	7182	6008	9122	194337
Domestic Service	20051	7098	14412	11201	303903
Total Occupied	112507	58651	39279	95587	1777137

Source:- PP HC 1914 (7018) Vol. LXXVIII Tables 15a, 15b.

Table 8b — Occupations of Males and Females over Twenty Years Old 1911 — Percentages

Occupation	Wandsworth	Battersea	Hampstead	Camberwell	London
Agriculture	0.9	0.3	0.9	0.4	0.4
Mining	0.2	0.2	0.2	0.2	0.2
Building	9.8	12.6	4.6	9.1	7.3
Manufacture	18.2	24.4	12.2	28.6	26.7
Transport	7.8	12.4	5.0	10.5	11.1
warehouses	1.3	1.8	0.9	2.2	1.8
sea & inland navigation	0.3	0.3	0.1	0.3	1.9
railways	1.9	4.9	1.2	1.6	2.0
roads	4.3	5.4	2.8	6.4	5.4
Dealing	15.2	15.2	13.2	17.6	16.5
Industrial Ser	14.7	10.5	12.0	12.3	9.8
clerks	7.5	5.5	5.0	6.6	4.6
labourers	1.7	2.3	0.8	1.9	2.2
others	5.5	2.7	6.2	3.8	3.0
Public service & Professional	15.4	12.2	15.3	9.5	10.9
Domestic service	17.8	12.1	36.7	11.7	17.1
Total Occupied	100.0	99.9	100.1	99.9	100.0

Source: See Table 8a.

The figures suggest a greater degree of uniformity between the districts than was evident in earlier censuses, but Wandsworth had a relatively high number of public servants, and Battersea still gave work to higher percentage of transport and building workers than did London as a whole. The next table compares selected occupations in 1911 with the same occupations in 1871, for the two boroughs combined in 1911, and for the Wandsworth Registration District thirty years earlier:-

Table 9 Occupations of Males & Females over Twenty Years Old 1871 compared with 1911 - Wandsworth Reg. Dist. & Wandsworth and Battersea boroughs

Occupation	1871 Numbers	1871 Percentage	1911 Numbers	1911 Percentage
Public & Prof.	3816	8.6	24777	14.3
Domestic service	10191	23.1	27149	15.9
Transport	2649	6.0	16097	9.4
Agriculture	1918	4.3	1187	0.7
Labourers	4045	9.1	3226	2.3

Sources: PP HC 1873 (872) vol. LXXI .1 Div 1. Table 3.
PP HC 1914 (7018) vol. LXXXVIII Tables 15a & 15b.

The most notable change over this period was the decline in employment in agriculture and in domestic service; the first is explained by the fact that most of the land of the district was covered with houses in the later nineteenth century, and the latter by the overwhelmingly working class and lower middle class nature of the district in the early twentieth century. But there had been a rise in the work in the public service, explained in part by the growth of local government services, and a similar rise in the amount of transport work.

Although changes in categorisation make comparison over time in manufacturing impossible, important modifications to the industrial structure of the study area took place from 1891 to 1914. First there was the decline in the work provided by the railway workshops in Battersea. Following the amalgamation of the L.C.D.R. with the S.E.R. in 1899, to form the South Eastern and Chatham Railway, the old L.C.D.R. workshops at Longhedge became redundant; they were closed in 1911, and the construction of locomotives and carriages was moved to Ashford.[41] The L.S.W.R. had already transferred its carriage works to Eastleigh in 1891, and the locomotive building followed in 1910.[42] There was contraction elsewhere in Battersea; the Wellington Works near Battersea Bridge ceased to make soap and restricted its activities to colour making in 1913, after a serious fire,[43] and the starch factory in York road closed in 1901.[44]

By 1914 the Battersea riverside was dominated by Price's Candle Works, and by the Morgan Crucible Co., who employed 421 people in 1901.[45] In Wandsworth flour milling along the Wandle declined, the number of mills fell from four in 1888 to two in 1898.[46] But new industries were springing up, the Brush Lighting Co. had a factory making electrical appliances on an island site in the Wandle in 1898.[47] These changing fortunes in employment in Battersea and Wandsworth were paralleled by similar differences between the population structure of the two boroughs.

Figures for total population and percentage growth, from 1891 to 1911 fo the parishes of the study area and for those districts used for comparison, are given in the following tables:-

Table 10 Total Population 1891 - 1896 - 1901 - 1911

Parish/ Registration Dist.	Population 1891	1896	1901	1911
Battersea	150558	165115	168907	167743
Wandsworth	46717	58101	68403	92376
Putney	17771	20566	24139	28242
Total Study Area	215046	243782	261449	288361
Clapham	43698	46953	51361	58592
Streatham/Tooting	48756	61644	88131	132150
Total Wandsworth RD.	307500	352379	400941	479103
Lambeth	275202	295033	301985	298058
Camberwell	234344	253076	250339	261328
Islington	319143	336764	334991	327403
Hampstead	68146	75449	81942	85495
Hammersmith	97239	104199	112239	121521
London	4232118	4433018	4536541	4521685

Sources:- PP HC 1893-94 (6948.1) VOL. CV Div. 1. Table 2.
LCC - Survey 1896.
PP HC 1902 (875) Vol. CXXI 1. London Table 1.
PP HC 1912-13 (6258) Vol. CXI London Table 10.

Table 11 Percentage Increase in Population 1891 - 1911

Parish/ Registration Dist.	1891-96	1896-1901	1901-11	1891-1911
Battersea	9.60	2.30	(0.69)	11.41
Wandsworth	24.37	17.73	35.05	94.00
Putney	15.72	17.37	17.00	58.92
Total Study area	13.36	7.25	10.29	34.09
Clapham	7.45	9.39	14.08	30.55
Streatham/Tooting	26.44	42.97	49.95	171.04
Total Wandsworth Rd.	14.59	13.78	19.49	55.81
Lambeth	7.21	2.32	(1.27)	8.31
Camberwell	7.53	2.47	0.77	11.04
Islington	5.50	(0.53)	(1.27)	2.59
Hampstead	10.28	8.61	4.39	24.96
Hammersmith	7.16	7.72	8.37	24.97
London	4.75	2.34	(0.32)	6.84

Source:- See Table 10.

As well as the usual deccenial censuses, information is also available from a special census of the population of London taken in 1896. All the districts on the table show some growth in population over the complete twenty-year period, although in the case of Islington this was only 2.5%. there are marked differences in growth between the parishes of the study area; Wandsworth parish grew by 94%, Putney by nearly 60%, but Battersea by only 11%, the smallest percentage increase in population for over one hundred years. But the most spectacular rise in numbers took place in Streatham and Tooting whose population grew 171%, a rate comparable with that experienced by Battersea in the 1860s and 1870s. There were also significant differences between population growth in the inner and outer districts, and between the earlier and later years of the twenty year period. Those areas closest to the centre of London grew fastest from 1891 to 1896; Battersea by 9.6%, Camberwell by 7. 5% but the population of the outer areas rose most from 1901 to 1911; Hammersmith

by 8.4% and Streatham and Tooting by 50%. Another interesting feature of this period is the fact that some areas actually experienced a fall in populationl; Islington began to lose people between 1896 and 1901, Battersea and Lambeth from 1901 to 1911. The population of London as a whole also began in decline in the first decade of the new century.

The same sharp distinction between inner and outer suburbs is observed when the element of population increase attributable to net inward migration is isolated from that due to natural increase:-

Table 12 Migration & Natural Increase 1891-1896

Parish/ Registration Dist.	Population Increase	Natural Increase	%	Inward Migration	%
Battersea	14557	12872	88.4	1485	11.6
Wandsworth	11384	3901	65.7	7483	34.3
Putney	2795	1392	49.8	1403	50.2
Total Study area	28736	18165	36.5	10571	63.2
Clapham	3255	2557	78.6	698	21.4
Streatham/Tooting	12888	2375	18.4	10513	81.6
Total Wandsworth RD.	44879	23097	51.5	21782	48.5
Hampstead	7033	1177	16.7	5856	83.3
Islington	17621	18172	100.0	(551)	-
Hammersmith	6960	7533	100.0	(573)	-
Camberwell	17732	14177	80.0	3555	20.0
Lambeth	19831	17815	89.8	2016	10.2

Sources;- PP HC 1893-94 (6948.1) Vol. CV Div. 1. Table. 2.
LCC - Survey 1896.

Table 13 Migration & Natural Increase 1896-1901

Parish Registration Dist.	Population Increase	Natural Increase	%	Inward Migration	%
Battersea	3792	11972	100.0	(8180)	-
Wandsworth	10302	4593	44.6	5709	55.4
Putney	3573	1318	36.9	2255	63.1
Total Study area	17667	17883	100.0	(216)	-
Clapham	4408	2772	62.9	1696	37.1
Streatham/Tooting	26497	3253	12.3	23244	87.7
Total Wandsworth RD	48572	23908	49.2	24664	50.8
Hampstead	7033	1383	19.6	5650	80.4
Islington	(1773)	19183	100.0	(20956)	-
Hammersmith	8649	7019	87.2	1630	12.8
Camberwell	6263	12501	100.0	(6238)	-
Lambeth	6862	18690	100.0	(11828)	-

Sources:- LCC - Survey 1896 PP HC 1902 (875) Vol. CXXI London Table 1.
Annual Reports of the Registrar General.

Table 14 Migration and Natural Increase 1901-1914

Parish/ Registration Dist.	Population Increase	Natural Increase	%	Inward Migration	%
Battersea	(1164)	22398	-	(23562)	-
Wandsworth	23973	14340	59.8	9633	40.2
Putney	4103	2655	64.7	1448	35.3
Total Study area	26912	39393	100.0	(12481)	-
Clapham	7231	7476	100.0	(245)	-
Streatham/Tooting	44019	11697	26.6	32322	73.4
Total Wandsworth RD	78162	58566	74.9	19596	25.1
Hampstead	3553	3061	86.2	492	13.8
Islington	(7588)	36794	-	(44382)	-
Hammersmith	9282	14270	100.0	(4988)	-
Camberwell	1989	27419	100.0	(25430)	-
Lambeth	(4837)	38803	-	(43640)	-

Sources:- PP HC (875) Vol. CXXI London Table 1. 1902
PP HC 1912-13 (6258) Vol. CXI London Table 10.
Annual Reports of the Registrar General.

In the years from 1891 to 1896 Islington's population rose by natural increase only, and no more than 11% of the Battersea rise in numbers could have been due to inward migration. In contrast net inward migration accounted for at least 34% of the rise of population in Wandsworth, 50% in Putney, and over 80% in Streatham and Tooting. The pattern was repeated in the next five years, Battersea losing population, but net migration in Wandsworth still accounted for 56% of the rise in the number of people, 63% in Putney, and 88% in Streatham and Tooting. Of the other boroughs used for comparison only Hampstead grew more by migration than by natural increase from 1896 to 1901. In the next ten years only Streatham and Tooting grew more by migration than by natural increase, whereas Battersea, Islington, Hammersmith, Camberwell, Lambeth and Clapham were exporting some of their natural increase. By the early years of this century those suburbs that had seemed to provide space for the inhabitants of the congested slums of central London in the nineteenth century were now full up, and would be migrants had to move to the outer reaches of the county of London and beyond into Middlesex, Surrey and Essex. The fact that land was becoming scarce in the inner suburbs by 1900 is demonstrated by the figures for the increase in the housing stock which are set out in the following table:-

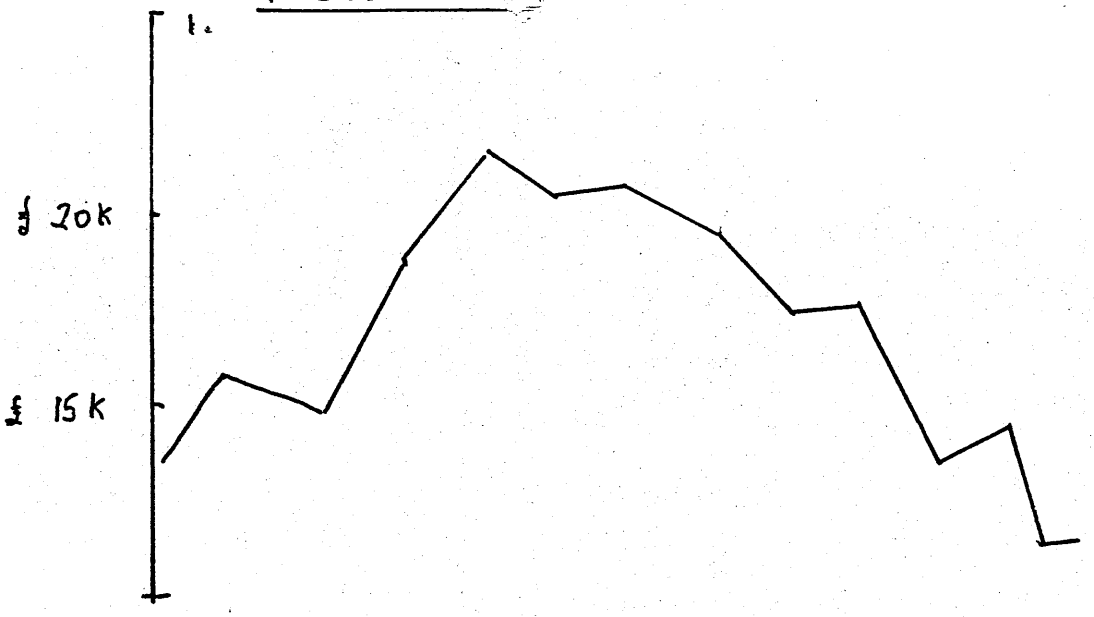
Table 15 The Housing Stock 1891-1911

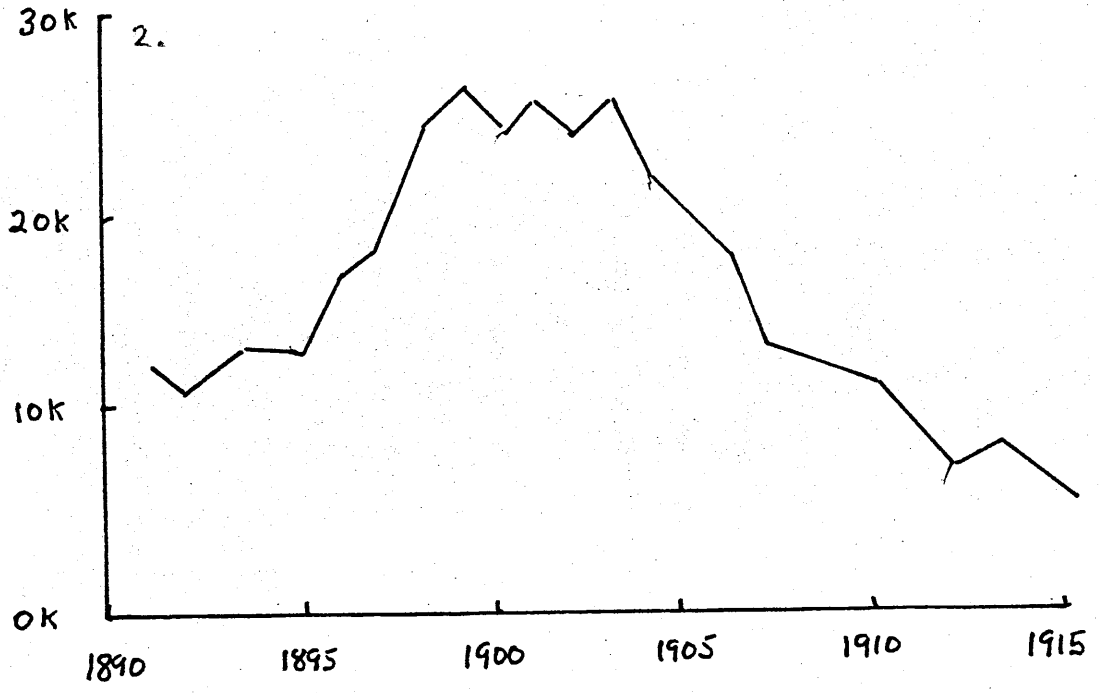
I - Inhabited Houses
U - Uninhabited Houses
B - Houses building

Parish/ Reg. Dist. Borough	1891			1901			1911		
	I	U	B	I	U	B	I	U	B
Battersea	20779	713	89	23462	670	107	24321	1195	39
Wandsworth	7256	403	110	10799	551	288	48432	2910	377
Putney	2967	235	19	4048	217	115			
Total Study A.	31002	1351	218	38309	1438	510			
Clapham	6994	318	75	8152	398	207			
Streatham	8135	607	130	14765	1082	569			
Total Wandsworth Reg. Dist	46131	2276	423	61226	2918	1286	72753	4105	416
Lambeth	38556	2165	265	41511	1825	137	39634	2468	108
Camberwell	33849	1942	142	36671	1308	220	36559	2010	93
Islington	37875	1656	237	36445	1517	45	36778	1953	6
Hampstead	9517	691	161	11294	715	110	11976	740	49
Hammersmith	14049	1026	99	15198	641	91	16121	759	19
London	544777	39608	4195	571768	40069	4624	573265	33006	1583

Sources:- PP HC 1893-94 (6948.1) Vol. CV Div. 1. Table 1.
PP HC 1902 (875) vol. CXX.1. London Table 1.
PP HC 1912-13 (6577) Vol. CXIII London Table 2.

House building 1891-1914
London.





Sources:
1. J. Parry Lewis - Building cycles and Britains growth 1965 p131
2. J. Calvert Spensley - Urban housing problems 1918.
(Metropolitan police district)

Table 16. Increase in the Housing Stock (Inhabited & Uninhabited Houses) 1891 - 1911

Parish Reg. Dist. Borough	1891 - 1901 No.	%	1901 - 1911 No.	%	1891 - 1911 No.	%
Battersea	2640	12	1384	6	4024	19
Wandsworth	3691	48	17330	42	24427	91
Putney	1063	33				
Total Study a.	7394	23				
Clapham	1238	17				
Streatham	7105	81				
Total Wandsworth Reg. Dist.	15737	33	18714	20	28451	59
Lambeth	2615	6	(1234)	(3)	1381	3
Camberwell	2188	6	(1410)	(4)	778	2
Islington	(1369)	(3)	5669	1	(800)	(2)
Hampstead	1801	18	707	6	2508	25
Hammersmith	764	5	1041	7	1805	12
London	27463	5	(5566)	(1)	2187	4

Sources:- See Table 16.

Although the growth of housing in the study area and in those districts used for comparison, was still quite impressive, in the twenty or so years before the Great War, in nearly every case there was a slowing down of activity in the years after 1901. In the case of Lambeth and Camberwell, the size of the housing stock declined in absolute terms after 1901, and in every locality except the borough of Wandsworth, the increase in the number of houses between 1901 and 1911 was less than ten percent. The figures provided by the decennial censuses disguise the cyclical nature of house construction, but the following graph (fig.1), shows curves of house building given by Parry Lewis and used for earlier periods already in this study, as well as data compiled for the Metropolitan Police District as a whole by J. Calvert Spensley in 1918. Both sets of data show that the middle years of the period now under consideration coincided with the last great house building boom of the pre-war years. It was

a boom which, unlike those of the late 1860s and the early 1880s, was sustained over a span of five years, from 1898 to 1903. Unfortunately the defective nature of the manuscript returns of the district surveyors for Battersea, Wandsworth and Putney, and the fact that the published figures are given for larger areas only, make it impossible to plot the building curves for the study area in any detail. But the figures given in the next table suggest that in the case of Wandsworth and Putney, the course of house building followed the general trend for London pretty closely. But in Battersea a high point was reached in 1898 at the start of the general boom, and thereafter construction fell away almost to nothing. This was due to the fact that by the beginning of the present century land for new house construction was almost exhausted in Battersea.

Table 17 The Building Cycle in Wandsworth, Battersea and Putney, 1891 - 1914.

Year	Battersea	Wandsworth	Putney
1891	348	315	79
1892	261	591	161
1893	253	347	98
1894	358	432	139
1895	275	299	89
1896	230	-	215
1897	257	219	119
1898	348	336	115
1899	193	539	181
1900	219	499	193
1901	146	-	-
1902	-	608	112
1903	-	-	72
1904	-	-	-
1905	39	565	141
1906	16	-	-
1907	12	-	54
1908	-	128	107
1909	15	54	27
1910	51	105	24
1911	47	43	16
1912	52	99	43
1913	80	106	15
1914	46	116	13

Source:- Manuscript returns of the district surveyors GLCRO - District Surveyors Returns 1891 - 1914 (some years damaged).

The vast majority of houses built after 1891 was, as in earlier periods, the result of the activity of private developers, but the years covered by this chapter saw the beginnings of house building by local authorities, which in Battersea at least, became the main means of provision of new homes in the second half of this century. There were two bodies active in the field of housing, the London County Council, and after 1900 the new metropolitan borough councils, in the case of the study area, Battersea Borough Council; Wandsworth Council, responsible for the remainder of the old Wandsworth Board of Works' area, built no houses in either Wandsworth or Putney in this period. The L.C.C. built only one group of houses in Battersea before 1914, this was Battersea Bridge Buildings, constructed to re-house those displaced by improvements to the approach to Battersea Bridge, and opened in 1901. This was a tenement block consisting of 10 one room homes, 44 two room, and 15 three room homes providing 143 rooms altogether. This was a very small scheme indeed compared with the L.C.C. estate at Totterdown just over the border in Tooting where the county council provided 4496 rooms between 1903 and 1909.[48]

Battersea Borough Council, one of the most active in the field of housing, constructed two estates before the First World War. One, Town Hall Buildings, was quite small, consisting of only 18 houses and 36 rooms, but the other, the Latchmere Estate, was a substantial project which comprised 172 houses and 315 rooms.[49] The Latchmere Estate, north of the West London Extension Railway, was opened in 1903. The quality of the accommodation was high, but so were the rents; three rooms cost 7/6d per week, and four rooms 10/; a five room house cost 11/6d per week.[50]

In Battersea by 1901 the only land left for housing by private speculators was the grounds of the villas that still remained on the north side and west side of Clapham Common. In July 1891 'Springwell', a late Georgian

house on the north side of the common was offered for sale, but the house was not disposed of until May 1896 when, together with the neighbouring 'Northside' and seven acres of land, it was bought for £38,000.[51] By 1905 the land was covered by a grid of streets bounded by Forthbridge and Taybridge Roads.[52] Developments were on a larger scale in Wandsworth. There were two prinicpal areas of activity, north and west of the L.S.W.R. main line, formerly called Duntshill and Allfarthing, but by now known as Earlsfield from the railway station, and on the Wimbledon Park Estate west of the Wandle. In 1886 houses were confined to the land between Garratt Lane and the Wandle, but all the land north and west of the railway was built over by 1905.[53] Progress south and east of the railway on land owned by Magdalen College, was much slower. In 1886 Magdalen Road ran from Wandsworth Common no further than the Westminster Cemetry, it was extended to Garratt Lane by 1896, and a grid of streets laid out by 1905. But even at that date houses were restricted to close to Garratt Lane and 'Earlsfield' station, many of these houses were built as two flats. Building on the greater part of the estate did not start in earnest until after the war, and much of the land remains open as playing fields to this day.

West of the river Wandle the greatest concentration of new house building was on the lowlying lands of the Wimbledon Park Estate. Even in 1896, seven years after the opening of 'Southfields' station, no houses had been built east of the railway; by 1905 a grid of streets had been laid out running south to the boundary with Wimbledon, and houses had been built at the northern end, close to 'Southfields' station.[54] The street grid was extended into Wimbledon and completely built over by 1920.[55] The housing on this part of the estate was quite different from that built earlier on the higher ground that ran up to Wimbledon Common. This had consisted of villas set in spacious grounds, but on the low land it was terrace houses that were erected. But terraces of a very substantial kind, six rooms on two floors, with no back extension. Most

of the new housing built in north Wandsworth and Putney at this time was of an older type of terrace with back extensions. A fairly typical street in this part of the study area is Fawe Park Road. Forty house plots in this road, which lies to the north of the L.S.W.R. Richmond line were sold in 1897-98 for just over £100 per lot, and building was complete by 1905.[56]

Work on most of the housing estates was either complete or suspended by 1905. This was the date chosen by Avner Offer to mark the end of the turn of century boom in house construction, and the start of the Edwardian depression in property values:-

> After 1905 construction became depressed, rents did not rise, property values fell, and higher interest charges could only push borrowers closer to insolvency.[57]

The data from the district surveyors returns already discussed suggest a sharp fall in house building after 1905; this fall was most marked in the cheaper sort of property, that described by the L.C.C. as "Labouring-Class Dwellings." The council had monitored the construction of this type of house, both by local authorities and by speculative builders, since 1902, and the figures for the boroughs of Battersea and Wandsworth are set out in the following tables:-

Table 18a Labouring Class Dwellings built 1902 - 1913
Battersea

Year	Tenements				Total	Total
	2 rooms	3 rooms	4 rooms	5 rooms and over	Rooms gained	Rooms lost
1902	31	15	74	3	418	86
1903	-	66	48	4	410	176
1904	26	100	52	46	758	60
1905	30	38	19	93	717	169
1906	8	9	2	8	91	10
1907	-	9	8	5	84	45
1908	1	9	10	-	69	24
1909	-	4	1	-	16	16
1910	-	6	1	-	22	26
1911	-	1	-	-	3	-
1912	-	-	-	-	-	205
1913	-	-	-	-	-	48
Total	96	257	215	159	2588	865

Table 18b Labouring Class Dwellings built 1902 - 1913.
Wandsworth

Year	Tenements				Total	Total
	2 rooms	3 rooms	4 rooms	5 rooms and over	Rooms gained	Rooms lost
1902	2	215	506	597	5748	38
1903	8	750	840	603	8906	30
1904	-	358	453	864	7316	149
1905	2	155	552	882	7484	429
1906	-	358	447	805	6964	145
1907	1	79	297	610	4658	80
1908	-	63	261	393	3242	186
1909	-	84	136	143	1511	33
1910	-	168	183	89	1692	48
1911	-	162	177	51	1450	106
1912	-	44	70	59	709	61
1913	-	2	82	128	974	39
Total	13	2438	4004	5224	50654	1344

Sources: L.C.C. - London statistics 1903/04 to 1913/14.

The unit of measurement is the tenement, and tenements are divided into four classes according to the number of rooms. The decline in new building after 1905 was most marked in the smaller type of tenement, and sharper in Battersea than in Wandsworth. No new working class tenements were built in Battersea

after 1911, and demolitions outstripped construction from 1910. New building was always much in excess of demolition in Wandsworth, but five times as many new homes were provided in 1902 than in 1913. The next table shows the average rents charged for labouring class dwellings, and contrary to Offer's contention mentioned above, there was a small but steady rise in rents from 1902, especially in Wandsworth, about a 1/- a week for tenements of three rooms and over, for the eleven year period.

Table 19 Rents of new Labouring Class Dwellings 1902 - 1913

	Tenements - Rents in shillings							
	2 rooms		3 rooms		4 rooms		5 rooms and over	
	Batt.	Wand.	Batt.	Wand.	Batt.	Wand.	Batt.	Wand.
1902	6.25	7.50	9.04	7.58	10.33	10.77	11.83	12.37
1903	-	8.36	8.08	8.41	10.63	10.69	11.88	12.49
1904	6.21	-	7.73	9.19	10.08	10.66	13.13	12.21
1905	5.71	5.75	8.33	8.79	13.13	11.13	14.54	12.48
1906	4.88	-	8.06	8.31	11.25	10.56	13.81	12.42
1907	-	7.50	8.10	8.69	12.50	10.75	13.37	12.28
1908	5.50	-	6.69	8.46	12.25	10.46	-	12.79
1909	-	-	6.00	8.68	12.00	11.02	-	12.10
1910	-	-	6.00	8.88	11.00	10.62	-	12.88
1911	-	-	7.00	8.54	-	10.90	-	13.90
1912	-	-	-	9.21	-	11.68	-	13.51
Mean	4.76	7.28	7.51	8.62	11.47	10.88	13.69	12.73

Source:- L.C.C. London Statistics 1903/04 to 1913/14.

About the time that house construction fell off, the number of empty houses increased, as the next table shows. Empties in Battersea fell from 713 in 1891 to 670 in 1901 but rose to 1195 in 1911. Similarly, in Wandsworth the number of empty houses increased from 1564 in 1891 and 2367 in 1901, to 2910 in 1911.

Table 20 Empty houses as a percentage of the total Housing Stock - (Inhabited + Uninhabited Houses) 1891, 1901, 1911.

Parish Reg. Dist	1891	1901	1911
Battersea	3.43	2.76	4.90
Wandsworth	6.37	5.36	6.00
Lambeth	5.62	4.21	6.20
Camberwell	5.74	3.44	5.50
Islington	4.37	3.98	5.30
Hampstead	7.26	5.96	6.20
Hammersmith	7.30	4.05	4.71
London	6.78	7.00	5.80

Source:- PP HC 1893-94 (6948.1) Vol. CV Div. 1. Table 2.
PP HC 1902 (875) Vol. CXX 1. London Table 1.
PP HC 1912-13 (6577) Vol. CXIII London Table 2.

Although the number of empty houses rose from 1891 to 1911, so did the number of people who lived in overcrowded conditions, that is at more than two persons per room, as the following tables indicate.

Table 21 Percentage of total population living in 1 - 4 room Tenements at more than two persons per room

1891

District	Percentage living in:- 1 room	2 rooms	3 rooms	4 rooms	Total
Battersea	2.3	2.9	0.9	0.1	6.6
Wandsworth	0.8	0.8	0.3	-	1.9
Camberwell	2.1	2.1	0.9	0.1	5.2
Hammersmith	2.5	2.9	1.0	0.1	6.5
Hampstead	1.7	3.2	0.8	0.1	5.8
Islington	4.7	5.6	1.2	0.2	11.7
Lambeth	4.2	3.5	0.9	0.2	8.8
London	5.1	5.0	1.2	0.2	11.5

Table 21 contd.

1901

District	1 room	2 rooms	3 rooms	4 rooms	Total
Battersea	1.6	3.9	3.5	2.0	11.0
Wandsworth	0.4	0.9	1.8	1.4	4.5
Camberwell	1.4	3.2	3.3	1.8	9.7
Hammersmith	2.1	3.9	2.7	0.8	9.5
Hampstead	0.7	3.0	1.9	0.7	6.3
Islington	3.5	7.8	3.9	1.9	11.1
Lambeth	2.6	2.3	3.1	1.6	9.6
London	3.3	6.5	4.1	2.1	16.0

1911

District	1 room	2 rooms	3 rooms	4 rooms	Total
Battersea	1.3	3.7	4.5	2.9	12.4
Wanmdsworth	0.4	0.9	2.6	1.7	5.6
Camberwell	1.5	3.6	4.9	2.7	12.7
Hammersmith	1.9	4.9	4.7	2.1	13.6
Hampstead	0.8	2.8	2.6	0.7	6.9
Islington	3.7	8.3	5.2	2.2	19.4
Lambeth	3.1	4.5	3.9	2.4	12.9
London	2.7	6.5	5.2	2.6	17.0

Sources:- PP HC 1893-94 (6948) Vol. CV Div 1. Table 5.
PP HC 1902 (875) Vol. CXX 1. London Table 20.
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In both Battersea and Wandsworth the percentage of the people who lived in overcrowded conditions was less than for the county of London as a whole, where the percentage rose from 11.5% in 1891 to 17.0% in 1911, or for inner districts such as Islington, Camberwell and Lambeth. But even in Battersea the percentage doubled from 6.6% in 1891 to 12.4% in 1911. In Wandsworth the percentage trebled from 1.3% in 1891 to 5.6% in 1911. Overcrowding increased most from 1891 to 1901, but the slower rise in the percentage from 1901 to 1911 shows that the building boom of 1898 to 1903 only checked the worsening of housing conditions.

The rise in the number of empty houses coupled with the increase in overcrowding, suggests that the lower paid at least were becoming less able to afford better accommodation and supports Offer's contention that unemployment and stagnant wages were components in the overall cause of the slump in house construction after 1905.[58] But the rise in the rent of new properties referred to on page 245 suggests that the reduction in supply was greater than that strictly required by the fall in demand. Offer also gives 'suburban trains' as another cause of the slump, presumably he suggests that property values would be depressed because tenants would move out of the central areas. But the increase in the damand for land in the suburbs would balance the fall in demand in the inner city. In the study area house building slumped both in Battersea, where the supply of land for housing was almost exhausted by 1905, but also in Wandsworth, which was more distant from the centre of London, and where land was still reasonably plentiful.

A more usual connection between transport improvements and house building is that the former stimulated the latter. This was the view taken by H.H. Gordon in 1918 when he claimed that the electrification of the tramways after 1901 was responsible for the third great house construction boom.[59] Even ignoring the fact that this boom got under way in 1898 and not 1901, the evidence from Battersea, Wandsworth and Putney does not support Gordon's view. The first horse tramway, that from North Street Wandsworth to Vauxhall, was not electrified until 1906, and this line ran through districts built over in the 1880s; and the first new electric line, sponsored by the L.C.C. as a means of relieving housing congestion, which ran along Garratt Lane and passed through much open land, did not come into service until 1906. By that date the construction boom was over and the property slump had begun.

The truth seems to be that improved and cheaper travel, whether it was by electric tram or by workmen's train, could not counter-balance the consequence of even a small rise in the rents of suburban property, the stagnation of wages, and the increase in unemployment. As Calvert Spensley said in 1918:-

> The figures indicate that while a workman by migrating to the suburbs may obtain more healthy surroundings, he cannot expect to obtain an additional room without an increase in rent.[60]

The failure of cheap transport to compensate for this inability to afford even a modest increase in rent was the major reason why the fields of Magdalen Park in the south of Wandsworth, and the villa estates of Putney, remained inviolate until after the Great War.

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CHAPTER 7

Conclusion

The war years from 1914 to 1918 marked a real watershed in the history of Battersea, Wandsworth and Putney. The seventy years before 1918 saw much development and innovation in transport and in housing, but the period after the end of the war was one of at first consolidation, and later decline, in public transport, in population and in housing.

The electrification of the L.S.W.R. suburban lines authorised before 1914 was put into effect during the war, and by 1918 all the railway lines in the study area, with the exception of the West London Extension Railway, were electrified. Shortly after the end of the war, in 1923, the old companies lost their identities when the L.S.W.R., the L.B.S.C.R., and the S.E.C.R., were amalgamated to form the Southern Railway. The Southern Railway itself was abolished in 1947 with the nationalisation of the railways. Only two railway stations were closed between 1914 and 1985; 'Battersea Park Road', the old L.C.D.R. station, was closed in 1916, and 'Battersea' on the W.L.E.R., was destroyed by a land mine in 1940 and not replaced. Services remained frequent and prosperous in the inter-war years, and for a while after 1945, but more recently the motor car, like the electric tram in the early years of the century, has taken much traffic away from the railway, and off-peak services in particular are considerably reduced. There are now very few trains over the W.L.E.R., and the service on the South London line is limited to weekdays only.

In 1933, just ten years after the grouping of the main line railways, the Underground and Metropolitan Railways, the motor buses, and the L.C.C. tramways were put under one authority, London Transport. Thus for over fifty years the control of public transport in the study area has been the respnsibility of two public bodies, and it is only in very recent years that interchange tickets have become available from London Transport to British Rail. There was more technical innovation on the services of London Transport than on the Southern Railway between the wars. The motor bus completely replaced the horse bus soon after the end of the war, and in 1937 trolleybuses took over from trams on the lines from Wandsworth to Tooting along Garratt Lane, and from Clapham Junction to Putney Bridge. These were some of the last roads in the area to be served by trams, and it was only the persistance of the L.C.C. that was able to overcome the opposition that had kept the horse trams out of Putney and west Wandsworth. Both the electric tram and the trolleybus have now passed into history; the last tram was replaced by motor buses in 1950. At the time of the Festival of Britain in 1951, the L.C.C. made another attempt to operate a commuter service on the Thames, with the same unhappy results as their efforts in the first decade of the century; now most of the local piers have gone and the river is given over to the tourist.

Just as the later twentieth century has seen a decline in public transport, the population of the area has fallen also. The decline had begun in Battersea before 1911, but in that year the borough of Battersea had 167,743 inhabitants, and the much larger Wandsworth had 311,360. By 1961 the population of the borough of Wandsworth had risen to 347,422, but that of Battersea had fallen to 105,758, less than it had been in 1881. By 1971 the new London Borough of Wandsworth, which combined the old metropolitan boroughs of Battersea and Wandsworth, with the exception of Clapham and parts of Streatham, had a total population of 300,570.

The First World War marked an important change in housing policy also for it saw the introduction of rent control which has been with us since in various forms. This has had the effect of reducing the attractiveness of building for rent as an investment, and after the war most new private building in the study area was for sale to owner-occupiers. It was after the war that the local authorities, the L.C.C. and the borough councils, became major suppliers of low-cost housing, both in flats, and in cottage estates such as that built on the grounds of Dover House in Putney. The Second World War brought massive destruction to Battersea, most of the borough between Nine Elms and the High Street has been comprehensively rebuilt. The old street plan has been obliterated, and the small terrace houses have given way to tower blocks and acres of concrete, and the social problems associated with such estates. Council house building has also taken place in parts of the study area untouched by bombs. The villas of Roehampton Park have been replaced by the prize winning L.C.C. Alton Estate began in 1951. Even this estate, with its leafy grounds and its proximity to Richmond Park, has its problems, especially a poor bus service. In very recent years the best council property has been sold off, and a certain number of luxury flats have been built on the site of the old riverside factories of Battersea, thus leading to a new migration from Chelsea.

Although the changes to the fabric of the district since 1914 have been extensive, they have been changes to a framework already in place in 1914. This thesis has been concerned with the part played by improvements in transport in the construction of that framework, and in the Introduction it was stated as an hypothesis that new facilities for travel followed rather than caused the growth of suburbs. The transport mode that was capable of moving the greatest number of people was the railway, but the majority of railway lines in the study area were built for reasons other than to give

suburban travellers a way to go to town each day. Only two lines were promoted with the commuter in mind, these were the South London and the Wimbledon and Putney lines. The South London was constructed through districts already well covered with houses, and where potential travellers lived in considerable numbers. The Wimbledon to Putney line was an estate railway, designed to encourage building on the Wimbledon Park Estate, but houses were not built in any numbers on the lower ground of the estate until similar locations closer to town were developed.

Two other transport modes were as old as the railway, the river steamers and the horse omnibus, but both played a subordinate role in suburban growth. The steamers were restricted to the parts of the study area close to the river, and the services were limited to daylight hours and were unpleasant in bad weather. The horse bus was always a middle-class preserve because of its high fares and late starting times. The trams, both horse drawn and electric, were altogether more important, and by the early years of this century they were the major carriers for journeys within the study area, to places of work in the locality, and for shopping and pleasure expeditions. In its early, horse-drawn phase, the tramway was a private speculation seeking to make a profit, so the promoters laid their tracks where customers already lived. It was the existence of housing estates that stimulated the promotion of the tramway, not the other way round. Although the L.C.C. actively promoted the extension of the tramway system as a way to encourage migration from the congested districts of central London, the tram even when electrified, was slow, and its carrying capacity small when compared to a railway train. The system was confined by middle-class opposition to north Battersea and Wandsworth until a few years before the outbreak of the Great War. This opposition ensured that the tram had only a very limited effect on the way that the study area was developed, and its coming merely re-enforced existing social patterns.

If the importance of transport has to be down-graded, it is necessary to look elsewhere for the determining influences in suburban development, and the pattern of landownership and the policy followed by landowners is of considerable importance. Battersea and Wandsworth in particular, by virtue of the survival of common fields into the nineteenth century, had fragmented property patterns, and this fragmentation was increased by the sale of the Spencer lands in the 1830s. Such a network of small and divided estates did not lend itself to large scale planning, neither did it make the creation of slums inevitable. But the ability of proprietors, even when in possession of large consolidated holdings, to influence the course of development was limited. Two examples stand out, Park Town and Wimbledon Park. In the case of Park Town the plans of Phillip Flower for a middle-class estate on South Kensington lines was thwarted by the encroachments of industry and of the railways. Although J.A. Beaumont was able to clothe the high ground of Wimbledon Park with villas, he could not encourage builders on to the lower parts of his property until similar areas closer to town had been built over. Thus the pattern of landownership and the strategies adopted by landowners to maximise the return from their properties was important in the initial stage of development, other determinants must be sought to explain the character of the completed suburb.

It was stated in the Introduction that the most fundamental influences on the nature of suburban building were the situation of the district in regard to London as a whole, and the character of the local topography. One of the hypotheses referred to in the Introduction stated that a pattern of development, whether industrial, working-class housing, or middle-class villas, once established in one sector of the city, tended to be extended outwards as the city expanded. In east London the riverside industries of Wapping continued to grow downstream to Shadwell and Poplar, and in the north

east the domestic manufacturers of Shoreditch spilt over into Hackney. The south bank of the Thames had always been less favoured for residence than the north, and had become the home of industries, in particular, the noxious trades. First Southwark then Lambeth, and then the riverside of Battersea became industrialised, and this concentration of industry, with the tangle of railway viaducts, made Battersea unattractive to the middle class after the middle of the nineteenth century. Although villas were built around Clapham Common at the very beginning of the century, their owners could not hold back the tide of working-class housing that was pressing in on them by the end of the century.

The extensions of patterns already established in Lambeth into Battersea was assisted by the local topography. The low-lying land of north Battersea and Wandsworth may have been congenial to industry but it did not appeal to the middle classes, and would not have done so even if industry had been absent. Exceptions to the rule that a suburb repeats the character of its neighbour closer to the centre are provided by some islands of higher ground on both sides of the river. Such islands were early colonised by the middle class and their elevation helped their residents to resist pressures from inner London. The best known example is Hampstead which has retained its exclusivity despite the deterioration of such neighbouring districts as Camden Town and Holloway. The closest parallel in the study area is the high ground around Wimbledon common and Putney Heath which was highly favoured by villa builders, and it took the power of the L.C.C. to loosen the middle-class grip on the area after the Second World War.

Thus the major long term influences on suburban development in the study area were the patterns already established closer to the centre of London, and the local topography. Factors important in the initial stages were the size

and composition of potential building estates and the policies followed by their landlords. Improved means of transport were either introduced independently of local conditions, as in the case of the main line railway network, or followed rather than led suburban growth. If new technologies in transport did not determine the course of the building of the suburb, the timing and nature of that building had a considerable influence on the way that the area was eventually provided with a public transport system. The main means of cheap travel, the workmen's train and tram, were confined to north Battersea and Wandsworth, where a large working class population already lived. When the tramways were electrified and extended by the L.C.C., the trams moved into areas such as Garratt Lane where the erection of working class terrace housing had already begun. Middle class opposition kept the tram out of south Battersea and Putney almost to 1914. The travel needs of these localities were met by the horse, later the motor bus, and by the regular suburban services of the main line railways. Commuting from the suburbs to the centre of London remains in 1985, as it was in 1914, a mainly middle-class activity. It is significant that today the best services to London, whether by bus or train, are from Putney, just as it was in the days of the short-stage coach, before the beginning of the transport revolution.

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